

SEPTEMBER 2021

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**T**HERE WERE MANY HIGHLIGHTS AT THIS year's Festival of Speed as we explain a little further on in this month's magazine. But one thing that stood out and which it is easy to take for granted is the wonderful preservation of the cars.

This is as it should be: these are genuine historic artefacts that tell a story and have a value well beyond the sum of their parts. They are worth preserving - as the crowds of people gathering around them attest.

It is curious then that we do not always afford the same reverence to the places they come from. In fact we can show a careless disregard for locations at the heart of our racing history. This was brought to mind this month when we received a letter from a reader, Alex Farrell from Surrey, about a key piece of F1 history that may be under threat.

Over to Alex: "For the best part of 10 years there has been talk of the Tyrrell Shed being relocated to nearby Brooklands Museum," he wrote. "I phoned up to find out if this has happened; it has not. I drove to Ockham to see if the shed still exists; it does. It's in good order and being used for storage. I had a long chat with the gent whose company occupies the site. He is keen for the shed to be saved but needs it moved by the end of this year. The latest quote for dismantling and reassembly at Brooklands is around £50,000."

Alex has contacted Brooklands and tells us that they said they have no room for the building, leaving its future hanging in the balance. He ends by saying, "I do hope that something can be done to save it. Let's not forget, Ken Tyrrell took on and beat the world from that shed."

Often it is down to enthusiasts like Alex to stop the bulldozers moving in. A few years ago a planning application was submitted to Haringey Council in London to demolish a set of buildings on Tottenham Lane which had been the site of Colin Chapman's first proper Lotus factory. Objections, led by Neil Duncan who was involved with the Colin Chapman Museum, highlighted the significance of the site. His efforts led to over 60 objections to the application, which was eventually refused. "The proposed development would result in the demolition of a Locally Listed Building which is a heritage of historic significance," said the planning officer. Too right!

Today the buildings and a plaque remain in place and I look at them every time I visit - which I do quite often since it is now my local branch of Jewson.

## THE EDITOR



**"It is often down to enthusiasts to stop the bulldozers moving in"**



**THIS MONTH'S COVER IMAGE:**  
The Scuderia Cameron Glickenhaus 007 Hypercar shot for *Motor Sport* on its race debut in Portimão  
Photography by Drew Gibson

Some sites are still remembered, of course: in 2018 English Heritage treated the Cooper Car Company works in Surbiton to its own blue plaque. In Bourne, Lincolnshire, you can hardly move for reminders of its association with BRM and ERA, featuring as it does a Raymond Mays Way, a Graham Hill Way, a BRM exhibition centre, and of course RM's home, Eastgate House, is well preserved there. Some prompts from history are more subtle: there is now an office block where the Connaught racing car base once stood in Send, Surrey - but at least it is called Connaught House.

Not all sites are as lucky. Although the name has recently been revived little remains of the Vanwall base in Acton. And as we reported in these pages some months ago, the Lola factory site in Huntingdon is up for sale with no guarantees about any new venture remembering its heritage. Our own Simon Arron remembers trying to trace Trojan Cars, which built some of the chassis for Bruce McLaren as well as its own single seaters. "It was based in Beddington Farm Road, Croydon and I tried to locate the site when I lived nearby, but couldn't work out quite where it had been," reports Simon. "I think it might be the site of a local water treatment works now."

As that era of our racing history retreats further, is it now appropriate that we start taking such sites a little more seriously?

It is true that because of their nature these buildings are rarely of any true architectural significance but that surely is the point. They are a product of their time and however prosaic they are undoubtedly "heritage of historic significance". Within them, gifted men - and women - worked with total focus and commitment to add new chapters to our nation's sporting history.

Who knows, perhaps next year the central display at the Goodwood Festival of Speed won't be a virtual incarnation of a Lotus as it was this year but a lowly - if large - wooden shed. But a shed in which such feats of engineering as the 1971 constructors' title-winning Tyrrell 003, and the 005/006s which took the '73 drivers' title originated.

*Joe Dunn*

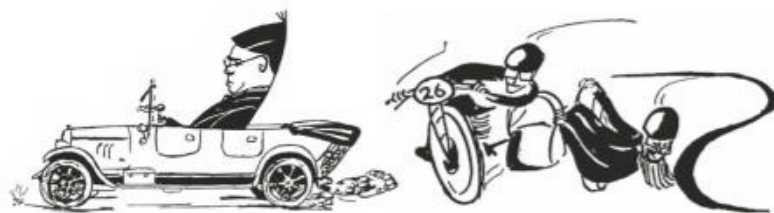
Joe Dunn, editor  
Follow Joe on Twitter @joedunn90

**NEXT ISSUE:** OUR OCTOBER ISSUE IS ON SALE FROM AUGUST 25



# MOTORSPORT

IN THE SPIRIT OF BOD AND JENKS



## Editorial

+44 (0) 20 7349 8484  
editorial@motorsportmagazine.com  
18-20 Rosemont Road, London NW3 6NE, UK

EDITOR Joe Dunn

EDITORS-AT-LARGE Gordon Cruickshank  
and Simon Arron

GRAND PRIX EDITOR Mark Hughes

ART EDITOR Owen Norris

CHIEF SUB-EDITOR Lee Gale

DIGITAL EDITOR Dominic Tobin

STAFF WRITER Jake Williams-Smith

DIGITAL WRITER James Elson

CONTRIBUTING EDITORS Andrew Frankel,  
Doug Nye, Mat Oxley

SPECIAL CONTRIBUTORS Gary Watkins,  
Robert Ladbroke, Simon de Burton, Damien Smith

PICTURE LIBRARIES Getty Images, DPPI,  
Grand Prix Photo

## Advertising

+44 (0) 20 7349 8484  
sales@motorsportmagazine.co.uk

COMMERCIAL DIRECTOR Sean Costa

COMMERCIAL MANAGER Mike O'Hare

ADVERTISING MANAGER Paula Trainor

SALES EXECUTIVE Connor Garnett

## Publishing

MANAGING DIRECTOR Giovanna Latimer

FINANCIAL CONTROLLER Niall Colbert

ACCOUNTS ASSISTANT Eitan Kropp

HEAD OF DIGITAL Zamir Walimohamed

BRAND & E-COMMERCE MANAGER Tim Cooper

SUBSCRIPTIONS MARKETING MANAGER Samantha Nasser

MARKETING EXECUTIVE Jess Hollier

FOUNDER EDITOR Bill Boddy MBE

PROPRIETOR Edward Atkin CBE

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## Details matter.



In our track test of the final Lister Costin ever built, on page 100, a 1954 photo, *left*, finds company founder Brian Lister in conversation with Archie Scott Brown, who is behind the wheel of the first Lister Bristol. The car's registration, MVE 303, is part of Lister folklore. It was chosen by Brian on a visit to the Cambridge vehicle licensing office, and refers to the .303 cartridge used by Lee-Enfield rifles, which Brian would have been familiar with from his post-war RAF national service. It was hoped, of course, the car would be as fast as a bullet.

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NATIONAL MOTOR MUSEUM/HERITAGE IMAGES VIA GETTY IMAGES





**1957 MASERATI 200 SI**  
Well-Known and Race-Winning Example  
Driven in Period by Joe Sheppard  
Coachwork by Fantuzzi



**1929 BUGATTI TYPE 35B GRAND PRIX**  
Formerly the Property of Louis Chiron  
Winner of the 1929 Grand Prix de l'ACF and  
Spanish Grand Prix | Chassis 4938



**1980 PORSCHE 935 K3**  
Part of the Famed Interscope Racing Team  
Extensive Period and Historic Competition History  
Amelia Island Concours d'Elegance First in Class Winner



**1966 FORD GT40 ALAN MANN LIGHTWEIGHT**  
The First of Only Two Aluminum-Bodied GT40s Driven  
by John Whitmore and Frank Gardner at the 1966  
12 Hours of Sebring | Pebble Beach Award-Winning  
Restoration by Model Expert Bob Ash | Chassis AM GT-1



**1959 FERRARI 250 GT LWB CALIFORNIA SPIDER COMPETIZIONE**  
Factory-Competition Engine, Gearbox, and External Filler | Raced in Period by Dott. Ottavio Randaccio  
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# MATTERS *of* MOMENT



Front and rear lighting are “claw-like strokes” – perhaps the mark of the lion on the new logo



## Peugeot unveils its Le Mans Hypercar

The wraps are off the 9X8, which will make its race debut in 2022

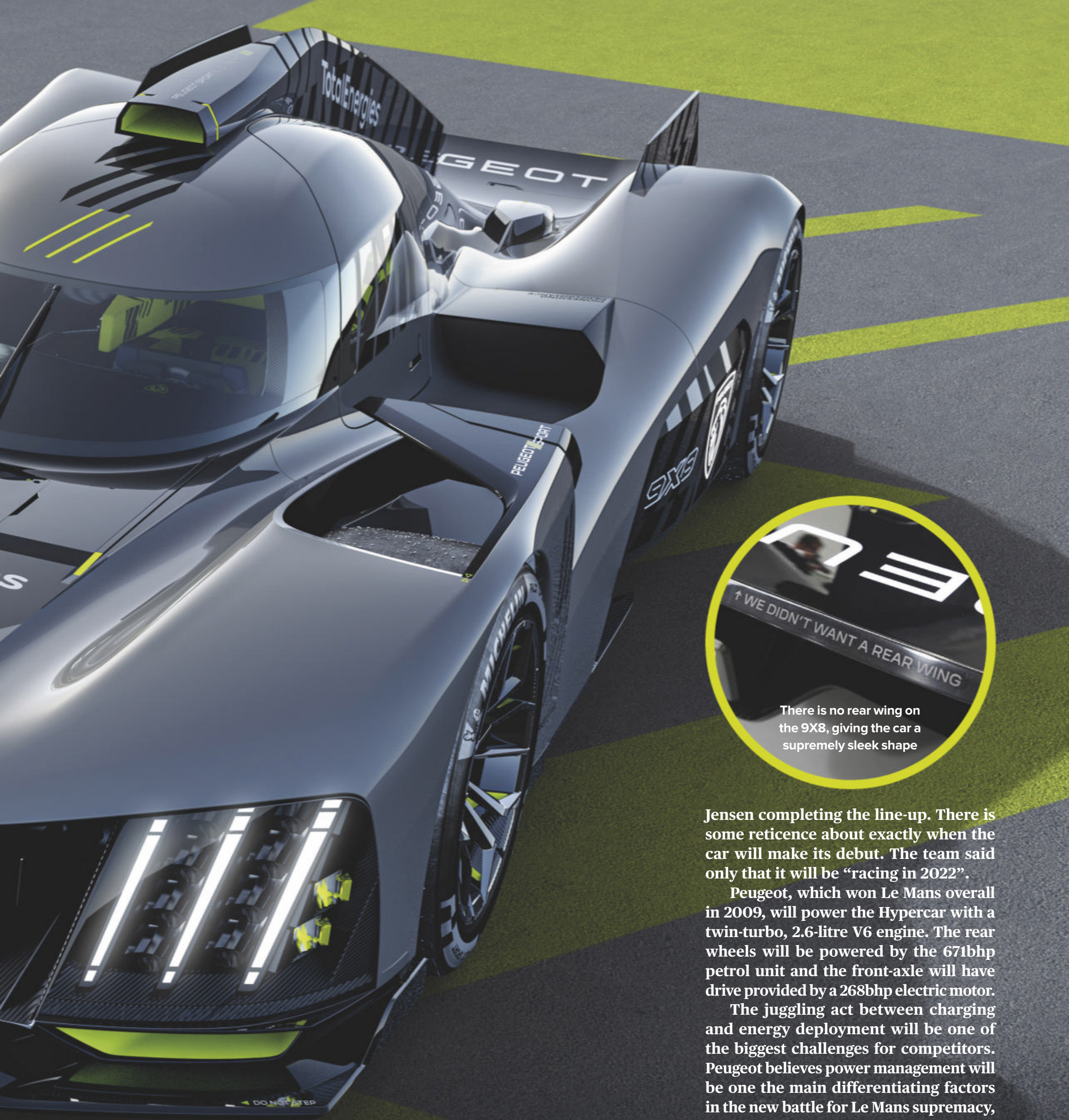
PEUGEOT HAS REVEALED ITS NEW arresting 9X8 Le Mans Hypercar design, set to enter the World Endurance Championship and Le Mans in 2022, after an 11-year absence from top-level endurance racing.

Unveiled in a virtual press conference by drivers, it features no rear wing thanks to more flexible rules for the Hypercar

class, which replaced LMP1 at the top level of endurance racing this year.

The 9X8 will compete against cars from Toyota and Glickenhaus, which are already racing in this year's WEC, and Ferrari which plans to enter possibly in 2023. It will also race against machines from BMW, Audi and Porsche which will be running in the LMDh class from 2023





after the two series reached agreement on equivalence.

Peugeot said that it had taken advantage of reduced design constraints in the Hypercar regulations, which stipulate a downforce-drag ratio of 4:1, leaving designers to work out how to achieve that.

Olivier Janssonie, the team's technical director, said the new regulations offer

“an opportunity to achieve the required level of performance without the need of a rear wing. We realised we have a fixed target of downforce to achieve and have complete freedom to achieve it.”

Drivers Kevin Magnussen, Jean-Éric Vergne and Paul Di Resta were presented with the car at the virtual launch, with Loïc Duval, Gustavo Menezes and Mikkell

Jensen completing the line-up. There is some reticence about exactly when the car will make its debut. The team said only that it will be “racing in 2022”.

Peugeot, which won Le Mans overall in 2009, will power the Hypercar with a twin-turbo, 2.6-litre V6 engine. The rear wheels will be powered by the 671bhp petrol unit and the front-axle will have drive provided by a 268bhp electric motor.

The juggling act between charging and energy deployment will be one of the biggest challenges for competitors. Peugeot believes power management will be one the main differentiating factors in the new battle for Le Mans supremacy, hence their decision to go down the Hypercar route. The LMDh rules are a more cost-effective package, but its spec hybrid system limits its options in regards to power deployment.

“WEC is at the very heart of hybrid technology,” said Peugeot CEO Linda Jackson in explaining why the brand was going back to Le Mans. “If you think about some of the tech we use on the racing car, it’s relevant for the production car.”



# Stars align for the Festival of Speed

**R**OGER PENSKE AND MARIO ANDRETTI upstaged Tom Cruise as the true stars of the 2021 Goodwood Festival of Speed, as crowds surged back to the Duke of Richmond's Sussex estate following the Covid-related hiatus of last year.

Like the British Grand Prix which took place the following weekend, the Festival of Speed was part of the UK government's Events Research Programme that allowed thousands through the gates without face masks or social distancing restrictions. A sense of 'business as usual' was enhanced by a typical assortment of novelties, oddities, new features, greatest-hit classics and striking performances on the hillclimb.

Modern stars such as McLaren F1 aces Lando Norris and Daniel Ricciardo naturally drew attention, but this was clearly the year of the octogenarians. Penske, 84, returned to Goodwood for the first time since he raced a Ferrari 250 GTO in the 1963 Tourist Trophy and drove the Porsche RS Spyder his famous team took to Sebring 12 Hours glory in 2008.

Andretti, 81, revelled in being reunited with his F1 World Championship-winning Lotus 79 owned by Zak Brown, sampled a 1952 Ferrari 500 as raced by his childhood idol Alberto Ascari and caught up with old friends and rivals Sir Jackie Stewart, 82, and Emerson Fittipaldi - a slip of a lad at 74.

On the hill, McLaren factory GT driver Rob Bell stormed to fastest time of the

weekend in the Sunday afternoon shootout, managing a dramatic run in 45.01sec in a moody 720S GT3X. But Jack Tetley offered a timely reminder how Goodwood's narrow climb can bite when pushing on, dropping two wheels of his Chevrolet Camaro NASCAR on the grass on the run to the finish line. The car pinged between the straw bales, which contained the accident with welcome assurance. Liveried in the same Mello Yello colours run by Cole Trickle in Cruise's 1990 popcorn flick *Days of Thunder*, Tetley's dazed emergence confirmed it wasn't actually Trickle himself behind the wheel.

Lotus took centre-stage with its new Emira sports car, which was displayed virtually via a new 'multimedia' take on the Goodwood House central sculpture which conspicuously lacked an actual car.

Moving tributes (in both a physical and emotional sense) were paid to Sir Stirling Moss, at the first Festival to take place since his death last year, to Murray Walker and Hannu Mikkola, while industrial designer Marc Newson's striking blue 1974 Lancia Stratos HF was a popular winner of the Cartier Style et Luxe. The concours was judged this year by a panel that included design legend Gordon Murray, AC/DC frontman Brian Johnson, television presenter Dan Snow, Andretti United Extreme E racer Catie Munnings and influential designer, er, Marc Newson.



Esteban Gutiérrez was an ear-splitting attraction in the 2019 F1 Mercedes W10. Above: the Lotus central feature



Fog lights might have come in handy on this year's shortened Pikes Peak Hillclimb

ROBIN SHUTE RACING, GOODWOOD MEDIA





Above from left: remembering Sir Stirling Moss; the Duke of Richmond with *Days of Thunder* actor Tom Cruise; the Forest Rally Stage; Roger Penske meets the crowds



## Shute takes second Pikes Peak win

**B** RITISH DRIVER AND ENGINEER ROBIN Shute, *left*, has been crowned 'King of the Mountain' once again at the 99th Pikes Peak International Hill Climb in Colorado, held on June 27. Competing in the Unlimited Division, Shute posted a time of 5min 55.246sec in a Wolf GB08 TSC-LT.

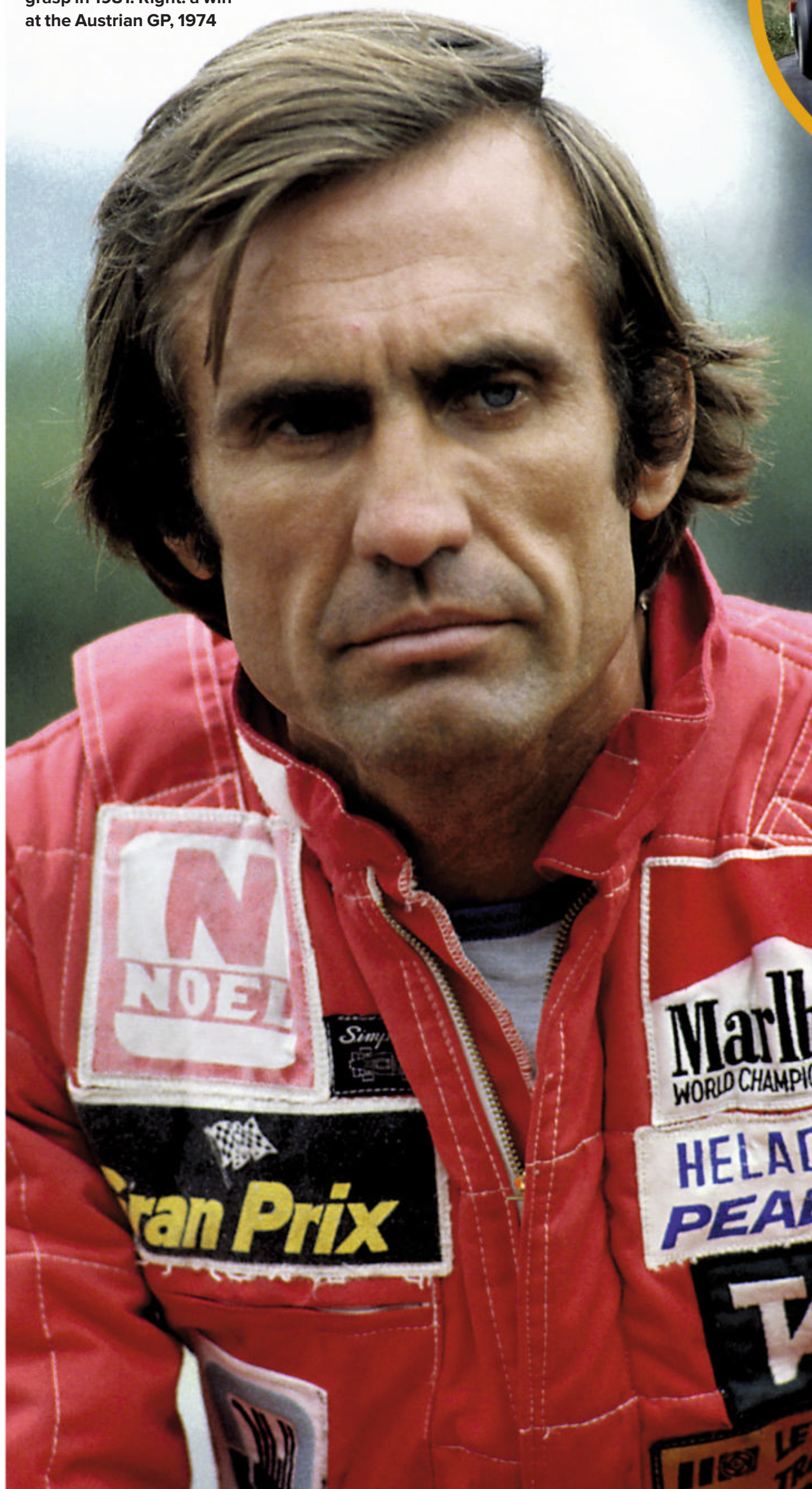
Normally the run is just under 12½ miles but due to wintry Snake Pass-like conditions of snow, ice and fog along the run to the 14,000ft summit, organisers were forced to delay the start by an hour and shorten the

course. Even on a reduced nine-mile ascent, visibility remained a problem for some of the 56 competitors.

Norwich-born, LA-based Shute won the world's most extreme hillclimb in 2019 and stands as the only Briton to hold the Pikes Peak title. His time this year was 36sec faster than second-placed Romain Dumas, who was in a Porsche 911 GT2 RS Clubsport. Asked if he expected the gap to be so wide, Shute responded, "Yeah, I did. I knew what was in the car and that we had a good run in us."



Reutemann's dream of becoming F1 world champion was within his grasp in 1981. Right: a win at the Austrian GP, 1974



## Carlos Reutemann 1942–2021

CARLOS REUTEMANN, WHO FINISHED runner-up in the 1981 Formula 1 World Championship, has died at the age of 79. The Argentinian, once hailed as the new Fangio, stood on the podium 45 times and showed his brilliance in memorable wins at Kyalami in 1974, the Nürburgring in 1975 and Monaco in 1980.

He made his F1 debut with Brabham in 1972, securing pole in his maiden race at Buenos Aires. In 1974 he came close to winning his home race only to run out of fuel with fewer than two laps remaining. Reutemann finally took a World Championship victory at the next race in Kyalami, keeping Niki Lauda at bay.

A switch to Ferrari brought him alongside Lauda during the Austrian's 1977 title-winning year, before he teamed up with Gilles Villeneuve in 1978. He won four times that season but lost out in the title to the dominant Lotus team.

He switched to Lotus in 1979 and then Williams in 1980. There, he helped the team to the Constructors' Championship and Alan Jones to the title. He would be more single-minded in 1981. Reutemann disobeyed team orders in Brazil, refusing to move over for Jones while leading and found himself 17 points ahead after Silverstone. He arrived in Las Vegas for the final race a point ahead of Nelson Piquet, and after clinching pole, the championship was his to lose. He did just that. Piquet came fifth, securing the two points he needed, while Reutemann trailed in eighth after driving "as if in a trance", according to *Motor Sport's* Nigel Roebuck.

Two races into 1982 he walked away from F1 and entered politics to become governor of his local state, Santa Fe. Reutemann, who had been suffering from complications following liver cancer, died on July 7.

For more see Mark Hughes's column on page 21

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## Watch-wearers of the world – unite!

When Karl Marx told the world's workers they had nothing to lose but their chains, he could have been talking about the original proletarian mode of transport: the bike. Coincidentally, cycling was the inspiration for the new C63 Sealander Elite chronometer. Not only does the smart pop-out crown stop it digging into your wrist when you're riding, but the super-light titanium case makes it effortless to wear. Though Karl would have surely loved these utilitarian features, we think its sleek design is more 'Wiggins' than 'Marx'.

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# MARK HUGHES

## “Reutemann was one of the greats but never found his perfect fit within F1”

**C**ARLOS REUTEMANN - QUICK, moody, handsome. He was one of the greats of the '70s and '80s but somehow never quite found his perfect fit within F1, other than for the occasional weekend when the planets aligned and all was right with his world. On those days he was untouchable. But it was as if the sport itself was sometimes just a little too crassly aggressive and hustling for someone of his sensitive nature.

He had the persona of an artist, not a sportsman. Deeply introspective, thoughtful but often conflicted, he believed he wanted to be world champion. With talent enough to put a mediocre lobster-claw Brabham on pole position on his debut, it seemed well within his grasp. But there was always something in the way, not always definable, but something.

Given Ferrari's reputation for internal politics, it's ironic that he had what was probably his happiest season there, in 1978. It was as if he'd finally found home. But the outside world had other ideas and he was cast adrift to wander as an F1 nomad once more. His talent meant he was in demand, but never as The Man. He didn't carry that energy. But in '78 he found himself in that role by default.

The circumstances of his recruitment by Enzo Ferrari in the wake of the injuries of Niki Lauda at the Nürburgring in '76 give some idea of the brutality of the F1 environment and of Ferrari in particular. 'Old Man' Ferrari would rather Lauda had not made his comeback that year, but just recuperated as the 'moral' champion rather than risk actual defeat. Ferrari levered Reutemann out of Brabham - where he was disillusioned with the Alfa-engined programme - by way of some dollars to Bernie Ecclestone. It was with the intention of replacing Lauda, whom Enzo did not expect to be anything like the force he'd been. But then Lauda had the gall to inconvenience Ferrari by insisting on coming back - and staying on into '77 to complete his contract.

Hence the circumstances were never there for Lauda to treat Reutemann with anything other than coldness. There could hardly have been a bigger contrast between two drivers than the direct Teuton and a moody Latin enigma.

Part of the problem for Lauda was that Reutemann was too good to assume the Clay Regazzoni role of happy support. He was a more ambitious driver than Regazzoni and still dreamed of winning the world title himself.

But he was not wired up to fight on Lauda's terms. I once asked Lauda to recount in detail how he wrested leadership of the team back, after Ferrari had tried to put him in a subservient role, initially offering him a job as team manager (!) and subsequently the number two position. Enzo could be brutal and maybe this was just his way of testing Lauda's resolve after the horrific experience of his Nürburgring crash.

“After reluctantly agreeing that I could continue to drive in '77, the Old Man told me that Reutemann would be leading the test programme. A couple of hours later I went back and demanded to see him again. He kept me waiting, all the usual bullshit. Then calls me to come in. I tell him, ‘I have a contract which says I am the number one and I do the test programme. If you don't want to fulfil that contract, fine. I have an offer to join McLaren’ - which I did not. ‘Just release me and I will drive for McLaren.’ He agreed I could take part in the test programme. So he had me bedding in brakes at Fiorano...

“I then turn up at the test at Paul Ricard and they look at me and ask what am I doing here, the three day test is for Reutemann. I say, ‘No, I have a contract. I am part of the test programme. I want a day in the car.’ Finally they agree. I can have the third day. So I sit and watch Mr Reutemann go round for two days. Finally I get in it, try the car. It understeers, I make some adjustments. Then I have them

take the fuel out and give me a new set of tyres. I drive a lap on the limit - and it's much faster than anything Reutemann has done. I get out and say to the team, ‘Okay, I'm done’ and they are saying no, we have the full day and I say, ‘No, I don't need the full day. I'm going back to the hotel.’ I then call the Old Man and I don't tell him about the low fuel and empty tanks, I just say I've just watched your Mr Reutemann go around for two days, I climb into the car and go almost a second quicker. If you rely on him for the test programme you will lose. You need to put me in charge. Which he did.”

But once Lauda had won that second title, he was off. With Lauda gone it was like a fresh start. Gilles Villeneuve was recruited to join Carlos; keen, open, relaxed, he was a breath of fresh air and they hit it off. Better still, Ferrari was switching to Michelin tyres and Reutemann would be leading that programme.

He gave Michelin its first win, two races into the season and won four times that year despite the general dominance of the Lotus 79. He was in form and seemed genuinely happy.

But Jody Scheckter had been signed for '79. Reutemann had failed to convince the Old Man that the team could be built around him. Scheckter took

matters into his own hands. “I arranged a meeting with Reutemann. It was in a car park somewhere. He got into the car and I said, ‘Listen, I don't know what they've told you but I've signed as number one. I think you should know.’ He went very quiet and left. He must've got onto the phone to Lotus that afternoon.”

So the nomad packed up his belongings into his duffel bag once more.

**“He was in demand, but never as The Man. He didn't carry that energy”**

Since he began covering grand prix racing in 2000, Mark Hughes has forged a reputation as the finest Formula 1 analyst of his generation  
Follow Mark on Twitter @SportmphMark





# MAT OXLEY

## “Mr Honda was happiest when he was up to his elbows in grease”

SIXTY YEARS AGO THIS SUMMER - AT Kristianstad in Sweden - Honda won its very first World Championship. The rider was Mike Hailwood, who wasn't even an official Honda rider at the time. His millionaire dad Stan 'The Wallet' Hailwood had rented a Honda four-cylinder RC144 for the 11-round 250cc grand prix series. Hailwood's remarkable natural talent did the rest.

Company founder Soichiro Honda rarely made visits to Europe because he was too busy working in Japan, but he was at Kristianstad that day to see history made, after flying from Tokyo to Stockholm via Hong Kong, Mumbai, Karachi, Cairo and Rome.

Honda-san's desire for world domination had his riders and engineers take control of grand prix racing with stunning speed in the early 1960s. This followed his 1954 declaration that his nascent motorcycle business would tackle the Isle of Man TT, the world's most challenging and prestigious motorcycle races. However, a fact-finding visit to the following summer's TT didn't go well. "There is no way we can win," he said after watching MV Agusta and Gilera dominate the 125cc, 250cc and 500cc races. "What a big mistake I've made."

After leaving the Isle of Man, Honda-san went on a shopping spree in Europe, buying a Mondial 125cc race bike in Italy and all kinds of other kit, from shock absorbers to machine tools, to be analysed in Japan.

In May 1959 Mr Honda waved goodbye to his first TT squad at Tokyo airport. They returned with the 125cc team prize and only two years later Honda won both rider and constructor crowns in the 250cc and 125cc World Championships. By the end of 1967, when Honda withdrew from motorcycle grand prix to focus on Formula 1, the company had won 33 World Championships and 138 GPs.

Only one of Honda's world champions from that golden age is still with us today,

89-year-old Jim Redman, who rode Honda machinery to six World Championships and 45 grands prix covering the 125cc, 250cc, 350cc and 500cc classes.

In March 1961 Redman became the first *gaijin* to sign for a Japanese manufacturer when he inked his first Honda racing contract. Redman worked closely with Honda-san on motorcycle development and has many memories of the man who would change bike racing forever.

"Mr Honda was always in the R&D factory, you never found him in the offices," recalls Redman. "He let others do all the office work because he was happiest when he was up to his elbows in grease."

"There was a funny one a few days before the Japanese Grand Prix at Suzuka, where Honda had a big factory. My team-mate Ralph Bryans was having problems with his 50cc twin but we weren't allowed to use the circuit to fix them, so they told us to use the airstrip next to the factory."

"While we were there working on the bike we had to clear the runway because Mr Honda was arriving in his plane. After he landed he came across to ask what was going on. The mechanics told him and the next thing he was into the bike, kneeling in his suit, working away. He was really hands-on."

"I think the reason Honda came up with so many good engineers was that they worked right next to Soichiro in R&D; he wasn't tucked away in a big office suite having coffee."

"The bikes were something else. We were used to single-cylinder Norton 500s and 350s revving to 7000rpm, or a little bit more if you were brave, and here we were in 1961 with 125s twins and 250 fours revving to 14,000."

Honda-san made his final visit to a motorcycle grand prix a quarter of a century later, some years after his engineers had

forsaken his beloved four-strokes to go with the two-stroke flow. In May 1985 he arrived at Jarama to watch Freddie Spencer during his march to a unique 500cc/250cc world title double, riding NSR500 and NSR250 two-strokes, which used reed-valve induction.

"Mr Honda came to Jarama and we were told he would be visiting the garage," remembers renowned mechanic Stuart Shenton, who looked after Spencer's 250s. "We were told what to do and where to be, then we stood there waiting."

"Mr Honda arrived and laid into Takeo Fukui [later president and CEO of Honda]. I asked one of the Japanese what he was saying. He told Fukui, 'Are you stupid? Did you pay attention at school? Because you don't know what you're talking about!' He said, 'Right, you've built these bikes with reed valves, now bring me a reed valve.' Then he lectured the engineers about how he thought the reed valve should be."

A year or two later Shenton was at HRC (Honda Racing Corporation) in Japan to build the latest bikes for the new season.

"Mr Honda turned up holding a motocross cylinder. He'd come to find the designer. He said, 'Who designed this?!' A bloke stuck up his hand and the cylinder was hurled at him across the room; then Mr Honda turned and walked out."

Although his workers nicknamed him The Old Man, he wasn't always avuncular.

Mr Honda died in August 1991 in Tokyo at the age of 84. His funeral was a modest affair, according to his written request: "Don't have a funeral procession that will interfere with the traffic."

**“He was called The Old Man but he wasn’t always avuncular”**

Mat Oxley has covered motorcycle racing for many years – and also has the distinction of being an Isle of Man TT winner  
Follow Mat on Twitter @matoxley



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# DOUG NYE

## “Thoughtful Phil Hill agonised over how his title might be viewed”

**R**IGHT NOW I’M REMEMBERING a very important year. It was 60 years ago, the summer of ’61, still a schoolboy, in my teens, sap rising - remember? Even then I had already spent 10 years entranced by motor racing. What extraordinary years they were for a UK kid.

Initially our country couldn’t field a Grand Prix car worth a light in face of Alfa Romeo, Ferrari, Maserati - and their great drivers, “the Continental crecks” as the piercingly cut-glass Queen’s-English tones of BBC or Movietone News commentators, even then relics of the 1930s, put it...

Into the mid-50s, HWM, Cooper and Connaught made some inroads as the great Italian marques ran out of steam - and lire. Then in 1954-55 the might of Mercedes-Benz avalanched into the fray. One could hardly help but gaze on in awe-struck admiration.

A less-unequal racing world re-emerged after Merc’s retirement ending ’55, Ferrari shook itself like a soaking Labrador, made the most of its inherited Lancia V8 technology and Fangio’s greatness... and still there wasn’t a British GP car worth a light. But, happily, some wonderfully promising home drivers were plainly on the verge.

For any increasingly motor racing-mad English kid, the blossoming competitiveness of Vanwall through 1957 with Moss, Brooks, later Lewis-Evans driving, was every bit as thrilling as a ’66 World Cup win at Wembley for round-ball freaks. We young Brits always wanted our home team, our blokes, to excel. We were schooled to do it. I for one did not resist. I had no interest in woolly-ball (tennis) or golf (why would anyone want to drop that tiny ball down that hole?) but I’d still be dismayed if the Brits were beaten at anything, even tiddlywinks. It was natural - but losing happened far too frequently.

Then Moss, Brooks and Vanwall won our home British Grand Prix at Aintree. Wahoo!!!

And it got better. They drove Vanwall to victory over rival Ferrari to win the Formula 1 Constructors’ Championship in 1958. Wahoo!!! And Cooper and Lotus were on the cusp. When Vanwall withdrew - mission accomplished - for 1959 Cooper-Climax took on their mantle. Ferrari crushed again. Wahoo!!! Through 1960, Cooper-Climax dominant, Lotus-Climax winning. Ferrari crushed again. More wahoo!!!

For so many young fans such as myself it was fulfilment. Bentley and Jaguar and Aston Martin might have waved our flag for years but only in endurance sports car stuff. Now ‘we’ were up and flying at Grand Prix level. It was heady, life-shaping.

And then came the change of Formula for 1961. The old 2½-litre class which ‘our blokes’ had come to dominate was swept away by FIA bureaucrats in Paris and replaced by a feeble new 1½-litre Formula, part-orchestrated by the Old Man of Maranello himself, Mr Ferrari. Through 1½-litre Formula 2 he had an all-powerful V6 racing engine developed and ready.

What seemed - even then - pathetically wrong-headed British efforts to continue racing existing hardware as the InterContinental Formula stood no hope. Instead, the new 1½-litre Formula took root. Ferrari started that ’61 season with a clear advantage for its powerful ‘Sharknose’ cars, and nearly crushed all that ‘our blokes’ could throw at them. The sheer genius of Moss at Monaco and the Nürburgring prevailed over the duelling Ferrari team leaders, Phil Hill and ‘Taffy’ von Trips. We fans hung on every tense moment...

Phil from California won the Belgian GP, and Taffy from Cologne won the Dutch and the British GPs. Phil added huge gloss when he co-drove with Olivier Gendebien to win

his second Le Mans 24 Hours, Olivier’s third. Phil had also been the Ferrari team’s fastest driver in qualifying, taking five consecutive pole positions up to the German GP on the *Nordschleife*. There, Moss’s private Lotus won again, while Phil and Taffy fought a terrific internecine duel, which ended with Trips second and Phil third after they had both spun in unison in a last-lap rainstorm.

The World Championship title could be decided at Monza. On race day Trips made a poor start, and while trying to compensate he collided with Jim Clark’s Lotus 21 and crashed into the trackside fence, he and 14 spectators losing their lives.

Phil Hill won the race - and became the first American to win the Formula 1 Drivers’ World Championship. But thoughtful Phil agonised over what had happened and how his title might be viewed. He had won it on merit, the Trips accident had happened behind him, he had not seen it, even in his

mirrors. But its circumstances triggered many a flashback for him of standing on the Le Mans pit counter six years earlier, waiting for his co-driver to stop and hand over the car to him for his debut as a Ferrari factory team driver - when mayhem erupted 20-30 yards before him in motor sport’s most ghastly catastrophe ever...

On his ‘tainted’ title, philosophical Phil would only say, “Well, there’s nothing I can do about that”. Yet it always rankled.

Now it’s 60 years since he achieved his racing ambition of becoming Formula 1 World Champion driver. Might I suggest raising a glass in memory of that? Just sometimes the nice guys win.

**“We young Brits always wanted our home team, our blokes, to excel”**

Doug Nye is the UK’s leading motor racing historian and has been writing authoritatively about the sport since the 1960s





# ANDREW FRANKEL

## "The 620S is a Seven that went over to the dark side and just kept going"

I HAVE THIS MONTH BEEN PONDERING more often than usual the seemingly nebulous relationship between fast and fun. I have often commented on the problems inherent with most fast cars, namely that to package and harness all the power required to make them go fast requires cars that end up being both large and heavy and which are, ergo, less fun. In my more iconoclastic moments, I may even have been given to observe that fast and fun may be mutually exclusive, if not perhaps quite diametrically opposed, aims.

But then a Caterham 620S came to stay for a few days, quite clearly to expose such thinking for the utter rot some have claimed it to be. For those who don't know, the 620S is a Seven that went over to the dark side, found it a bit too namby-pamby and just kept going. With a supercharged 2-litre engine producing 310bhp, it has a power-to-weight ratio of convincingly more than 500bhp per tonne, which is Bugatti Veyron territory.

Yet instead of occupying more road than a Sherman tank, the 620S casts the same shadow as any other Caterham, including mine. My Seven is a rather more modestly specified 1700 Super Sprint, 25 years old, and with a lump of old Ford iron under the nose producing a plucky 135bhp. It's a bit lighter than the 620S but not much, and certainly not enough to elevate its power-to-weight ratio to even half that of its brand new stablemate.

But what I felt would be so instructive about the comparison is that so much of the cars' specifications are the same. They have similar spaceframe chassis, with double wishbone front suspension and a De Dion tube at the back. They both direct their power rearward through a five-speed gearbox and have dimensions that in all important regards are either the same or close enough to make no difference. Really, the only enormous variation between them is that one is really, really fast and the other is not.

I set off in my car first, not because I needed to remind myself but because when comparison testing if you don't jump straight from one car to the next, something always gets lost down the gap in the middle. Also, it is the most enormous fun and I don't need an excuse. And as I bowled along, listening to the crackle and cackle of the little motor as it inhaled through a pair of twin-choke Webers, it was hard indeed to think how simply going faster would be more fun. These cars are about how they feel and, besides, even mine is more than quick enough to overtake almost anything almost anywhere, which of course is the principal virtue of power.

SO THEN I HEADED OUT IN THE 620S AND WAS impressed at once. I thought it would be a road-legal racing car, but it's not. It's set up quite soft, rides as well as my car and with thin bucket seats it's actually more accommodating of my 6ft 3in frame. It even offers somewhere to connect your telephone and seat warmers too. I can hear Colin Chapman spinning from here.

Before I drove it, I thought I'd be writing that though the 620S is certainly much quicker, it's also less usable, and the less you use a car, the less fun you'll have. Not so: the 620S is as usable as any other Caterham, which is actually surprisingly so. I've been on holiday to Europe in one.

The big difference is that if you drop a gear and floor the throttle, the 620S doesn't just jump convincingly forward, it slams your head back into your seat. It's pretty thrusting in fourth gear, borderline maniacal in third and absolutely unhinged in second. And it is great, great fun.

Yet while feeling it rip through the ratios is never less than utterly thrilling, you do soon get used to it. Or more used to it. Its other qualities however - the feel and precision of

its steering, the poise and balance of its chassis, the strength and tirelessness of its brakes, the speed of the gearchange and closeness of its ratios - never feel any more or less special, regardless of how far you go or how often you drive. I know this because these are things it shares with my car, and they never have.

Where the 620S is incredible is in providing supercar performance in a package you can still thread down a country lane; but my old banger offers a least two-thirds of the fun, for one third of the money. Diminishing marginal returns, I guess.

BECAUSE I HAD THE AUDI E-TRON THIS MONTH and because I couldn't face the ghastly Ecotricity network of electric car charging points, I downloaded the app for Ionity, Europe's ultra-fast charging network and found just one - one! - station between the west coast of Wales and London. Situated near Chippenham, it's half a mile off Junction 17 of the M4 in some concrete truck park wasteland where there is no shelter and only a grim and grubby small supermarket a short walk away.

But the charging experience? Oh my goodness. Tell the app where you are, which 'pump' you're using, plug it in and watch electricity pour into the car.

That's it. The e-tron will charge at around 270kW, or almost 100 times faster than a three-pin plug and five times quicker than anything Ecotricity will offer you. The fact the surroundings were hardly salubrious quickly became an irrelevance. Until all UK public charging is like this, the EV revolution will continue to be artificially restricted.

**"Maniacal in third gear and absolutely unhinged in second"**

A former editor of *Motor Sport*, Andrew splits his time between testing the latest road cars and racing (mostly) historic machinery  
Follow Andrew on Twitter @Andrew\_Frankel





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Sitting pretty: at Paul Ricard, Max Verstappen took the first of three consecutive F1 wins



# Trackside view

Max Verstappen's three wins in the space of three weeks stunned Mercedes and gave the Dutchman a 32-point lead over Lewis Hamilton. Our Formula 1 experts examine the tactics, tech and title permutations

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Red Bull rampant at the French, Styrian and Austrian GPs

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Speculation builds on who will be Lewis Hamilton's team-mate

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How an undercut masterstroke gave Verstappen the advantage in France

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"What do we do about racing penalties? I feel a reset is required"

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Paul Ricard circuit is on the up, while Kimi has a month to forget



 French GP  Styrian GP  Austrian GP

# Verstappen's historic hat-trick

For those who didn't believe there was a true title fight on the cards for this year, Max Verstappen and Red Bull know there is, says **Mark Hughes**







GETTY IMAGES





Superb drive, dodgy trophy: Verstappen cradles the spoils of the French GP



**T**HIS TRIPLE HEADER CREATED AN historic first: Max Verstappen became the first man in F1 championship history to win grands prix on three consecutive weekends. In doing so, he left Red Bull's home track 32 points clear of Lewis Hamilton.

The Red Bull and Mercedes were quite evenly matched at Paul Ricard, but if Mercedes was expecting a repetition of Barcelona - the last 'conventional' track after the oddities of Monaco and Baku - where it had comfortably beaten Red Bull through better tyre usage, it was to be sorely disappointed. The two Austrian races which followed painted an exciting picture for Red Bull, Verstappen and Honda, one of complete domination.



Red Bull is pushing development hard, whereas Mercedes has stalled

Red Bull continues to pile development on its car, Mercedes has essentially switched it off. These three races were where the impact of that started to become very apparent.

Barring a few development parts still in manufacture, the Mercedes W12's spec is essentially frozen and the Brackley wind tunnel is now devoted entirely to the new regulations car of 2022. It's only partly about prioritising the future over the present; everything Mercedes was seeing prior to the switch was saying there just wasn't much in the way of development potential left in the car. It had plateaued. Under the 2021 regulations, the low-rake car just didn't have anything left to give. The high-rake Red Bull, by contrast, is proving extremely responsive to further development in the wind tunnel.

Let's not forget Honda's contribution, too. The tiny RA261 introduced ahead of time for Honda's final year - a last chance, all-out strive for glory - has proved as powerful as the Mercedes and with slightly better deployment (i.e. it can keep delivering full power for slightly longer). For Ricard the Red Bulls (and AlphaTauris) were enjoying newly built-up

units, the original examples having done six races already this season.

#### FRENCH GP

Ricard was the first time this season where the Red Bull was decisively faster down the straights than the Mercedes. How much of this was the new power units and how much the further development of Red Bull's aero (it arrived here with a new variation on its spoon rear wing) was ultimately unknown. Mercedes calculated it was losing 0.25sec to the RB16B on the straights. Verstappen beat Hamilton to pole by 0.258sec. Flexi wings were all-but-forgotten at this race where the new measuring protocol came in.

"We've looked at it very carefully in simulation," answered Toto Wolff to the question of why they were running with visibly more rear wing than the Red Bull. "For us, we would lose more time in the corners than we'd gain on the straights. This is the optimum for us." Which means either the Red Bull, with a greater proportion of its total downforce being derived from the underfloor, is simply more efficient and can therefore do

**"Low-rake cars like the Mercedes just have nothing left to give"**





Across three straight fights, Verstappen bested Hamilton in each of them. It was tightest in France, with the Red Bull winning by less than 3sec

its optimum time with a smaller rear wing. Or the Honda has more power. GPS evidence lay the explanation more in favour of the former.

But Honda's part in why the aero of the Red Bull might be more efficient shouldn't be overlooked. It's smaller even than the original 'size zero' of 2015. Re-assessed priorities regarding the efficiency of energy recovery versus combustion efficiency led to a significant increase in valve angle, allowing the head to be much lower. Honda has given Red Bull more room for downforce creation and lowered the centre of gravity.

All that could have been wasted in the opening seconds at Ricard as Verstappen got a big oversteer slide into the first corner which forced him briefly onto the run-off area - and allowed Hamilton to take the lead. Hamilton and Mercedes appeared to be poised to take full advantage of the Verstappen error and on their way to victory but the latter had a surprise in store for them around the pit stops.

It happened like this: Valtteri Bottas had locked a wheel in his chase of Verstappen and by the 17th lap the vibrations from the flat-spot were becoming severe. Mercedes brought him in, obliging Red Bull to respond with Verstappen to prevent losing a place to the undercut of Bottas' new tyres. Bottas gained

# Getting technical

## Pirelli pressures and the race to slow down pitstop times

New technical directives were issued on consecutive weekends at both the French and Styrian grands prix regarding, respectively, tyre pressures and pit stop equipment. The former was in response to the blow-outs suffered by both Lance Stroll and Max Verstappen during the Azerbaijan GP at Baku after a Pirelli investigation found that the running conditions of the tyres were in some cases lower than Pirelli had calculated.

There is significant performance to be gained by running below the specified minimum pressures. Henceforth the FIA could request any tyre used in the race, after being heated to the tyre blanket temperature allowed pre-race, would have to show a pressure no lower than that specified by Pirelli.

Delaying the release of the car from the garage after tyre blankets have

been removed is now prohibited. This is all just a stop-gap until 2022 when the FIA will provide the teams with standard tyre pressure sensors linked up to race control. At the moment the teams use their own sensors.

Concerns about safety were behind the imposition of specified time gaps between operations at pitstops to outlaw any automatic triggering of a procedure between wheel fitment and the car coming off the jacks. With 2sec pitstops now common, the move is being made ostensibly to reduce the chances of a car rejoining with a loose wheel. No sensors and control systems can be used and the directive specifies that jack release cannot begin until all wheel guns have signalled completion – and that there must be

a gap of at least 0.2sec between jack release and green light.

Alpine's sporting director Alan Permane commented: "We don't have the tricky gizmos that other teams have clearly got. There's a wonderful line about it in the technical regulations that says any sensors must only be used passively. It's difficult to

understand how other teams are doing such quick times with automated guns – some teams

have even got guns which reverse direction automatically. Difficult to understand how they do that without having sensors and control systems, which effectively are not allowed.

"If teams really are using sensors to automatically release their cars, therefore taking the human reaction time out, it will help us."



Red Bull holds the current record for the world's fastest pitstop, at a stunning 1.82sec set in Brazil, 2019



1.1sec in that process. Before Verstappen stopped, Hamilton had been leading him by 3.1sec. Easily enough, reckoned Mercedes, to leave Hamilton out two laps longer than Bottas (i.e. a lap longer than Verstappen). It wasn't.

Verstappen, having backed away from Hamilton to save his tyres, had plenty of life left in them as he let rip with an in-lap 0.9sec faster than Hamilton would subsequently do. Even more damaging was Verstappen's great out-lap - which was 1.8sec faster than Hamilton's in-lap. Combined with a shorter pitstop loss for Red Bull, it added up to that 3.1sec - and Hamilton came out not 1.5sec ahead, as Merc had advised him, but level, going slower and on the outside for Turn 1. Verstappen was through. Hamilton hadn't been aggressive enough on the in-lap, uncertain that it *was* the in-lap until partway through it. His approach up to the box - which was the first in the pitlane - was relatively



Verstappen: bringing fizz to the season

gentle, and he lost a lot of time to wheelspin as he left. This was not Mercedes at its sharpest and they were punished by the relentlessly on-it Verstappen.

Sergio Pérez's Red Bull was always in the way of allowing Mercedes to bring Hamilton in for a second stop to attack Verstappen that way. With front tyres that were graining for everyone, if Hamilton had stopped again he'd

have needed to overtake Pérez just to get to Verstappen - and with a straight-line speed shortfall. But just in case, Red Bull brought Verstappen in for a second stop. He dealt comfortably with Bottas after rejoining, caught the tyre-troubled Hamilton on the penultimate lap and with way more tyre grip simply slung it down the inside into the Mistral chicane and out-braked the Mercedes for the victory. Bottas fell prey to a late fresh-tyred assault from Pérez, who took third by going around the outside of Signes.

## STYRIAN GRAND PRIX

The Red Bull Ring was hosting two consecutive races, just like last year, the extra event to replace the lost Canadian/Turkish race. So it was the replacement for the replacement in these Covid-randomised times.

The Styrian Grand Prix preceded the Austrian. Red Bull showed up with an

Home turf for Red Bull turned out to be perfectly picturesque, with Verstappen winning twice to open out a healthy points lead





interesting new diffuser on Verstappen's car (see *F1 tech*). It underlined once again just how aggressively Red Bull was pursuing this championship chance after seven years of Mercedes domination. The Mercedes was just as it had been for the previous few races.

Again the RB16B was gaining 0.25sec on the straights over the W12, but the lap time advantage was even greater. Unlike in France there wasn't really a contest. Verstappen converted his pace advantage into a dominant win. But how a dominant car's race plays out in the modern era of heat-degrading tyres, regular safety cars and strategy battles, is quite different to times past. There is no point in pulling ever-further away from the pursuer, then being a sitting duck on worn tyres after a safety car wipes out your hard-won advantage. Instead, you first of all pull out of the 1sec DRS range before that feature is enabled on the third lap (tick), then you ensure

that by the time the pitstop window opens (from around lap 15 onwards) you are far enough clear to have the undercut covered (around 4sec to be safe... tick) so you can pit a lap later than your pursuer without losing position to them. Then you bring your new tyres in nice and gently to ensure they aren't slow at the end, stay out of DRS range and monitor the tyre temperatures, usually of the left-rear around this place (tick, tick and tick). Even doing it like this, without any stress at all, and with the engine turned down, Verstappen was 17sec clear of Hamilton when the latter pitted two from the end for new tyres, just so he could take the point for fastest lap and at least limit the damage.

"We were flat-out," said Hamilton. "Then you have to apply some tyre management and then you're even further off. I think Max was able to manage his pace and still be pulling away." In times past, such superiority might have put Verstappen half-a-lap clear at the flag were they both able to go flat-out the whole way. It looked every bit as dominant as a typical Mercedes performance from any point between 2014-20.

"It's not a secret, there is a trend," said Merc boss Toto Wolff afterwards. "They have the faster package at the moment. We need to utilise our tools and our intelligence to understand our car, set-up work, the tyres and what it needs to deploy and then we need to be faultless. I believe if we can align those stars we can win the championship."

He sounded like he was trying to convince himself as well as the watching world.

Bottas this time was able to fend off the fresh-tyred Pérez at the end to take third. They'd each been in a support role to their title-contesting team-mates but had been delayed in lending that support by spending the first 10 laps stuck behind the over-delivering McLaren of Lando Norris, who had outqualified Pérez and started ahead of Bottas on account of a three-place grid drop for the latter.

### AUSTRIAN GRAND PRIX

Several truck loads of parts had arrived from Milton Keynes both during the Styrian Grand Prix weekend and in the gap between that race and this one. The Red

Bull production department had been flat-out making the parts churned out by the wind tunnel programme. There wasn't time to make more than one of each component. So Verstappen's car, in addition to the new diffuser from Styria, this time began with a new front wing and barge boards. Pérez got upgraded to the latest diffuser but stayed with the old wing and barge boards.

Mercedes... there were no truckloads of parts arriving from Brackley. Instead, Hamilton had spent several days on the simulator, checking out a new set up direction, trying just to squeeze the existing lemon. Hamilton hates simulator work, had used it by his own admission maybe three times in the previous three seasons. But needs must. Mercedes

**"It's no secret, Red Bull has the faster car at the moment"**



Lando Norris, aka the Master of Spielberg, celebrated yet another podium place in Austria



# Word on the beat

Bottas or Russell? Race roundabouts and more

● Following **LEWIS HAMILTON**'s new Mercedes contract to 2023, speculation has ramped up about the identity of his team-mate next year. Toto Wolff has confirmed that it is a straight choice between Valtteri Bottas and George Russell, *inset*, and that a decision would be taken "in the summer". If Russell is chosen (as widely expected), Bottas' options for 2022 would be either a return to Williams as Russell's replacement or a move to the Alfa Romeo Sauber team which is expected to retain only one of its current drivers. Most likely Antonio Giovinazzi.



● The **TURKISH GRAND PRIX** has re-appeared on this year's calendar, this time in the slot previously occupied by the cancelled Singapore slot. The Turkish race was originally a late-notice replacement for the cancelled Canadian GP but was then itself cancelled for Covid reasons. The Australian GP, due to take place on November 21, has been cancelled for similar reasons, leading to speculation that its place might be taken by a Chinese Grand Prix.

● The **RUSSIAN GP** is set to switch from Sochi to Igarka Drive (50 miles from St Petersburg towards the Finnish border) at a purpose-built track from 2023. The Hermann Tilke-designed circuit is already in operation but will receive an extension to take the lap to a little over three miles.



● A meeting of the **F1 ENGINE MANUFACTURERS** to discuss the engine format for 2025 and beyond took place in Austria. As well as existing brands, VW and Porsche were represented. Nothing has been established so far other than the new unit will again be a hybrid. Red Bull's Christian Horner, *inset*, is leading an initiative to delay the new engine's introduction to 2026.



Was this really worth a penalty? Pérez skates off after trying to run around the outside of Norris in the Austrian Grand Prix

was trying to find a different - more Red Bull-like - way of delivering the lap time. With a set-up based around the smaller, single-pylon rear wing. It showed promise in simulation; it was found wanting in the real world of Friday practice. Hamilton reverted to something approximating to the standard set up for the rest of the weekend. "Every time we try to squeeze more from it, it gets worse," he observed on Friday afternoon.

A tyre selection one step softer than in the previous weekend's race only seemed to hurt Mercedes more. It just didn't like the C5 soft tyre, the understeer couldn't be balanced out. It wasn't a race tyre but it had enough of a single lap grip advantage over the C4 medium that it needed to be used in Q3. Which was enough not only for Red Bull to increase its advantage, despite Verstappen not having got his tyres fully warmed at the beginning of his final lap, but it allowed Norris' (upgraded) McLaren to sneak ahead of them too! In fact, Norris missed out on stealing pole from the compromised Verstappen by only half-a-tenth. It was a stunning demonstration of his talent and confirmation of the strides made by McLaren. But it also reflected how the McLaren's rear wing is configured to give a very big DRS boost, even at the expense of efficiency in non-DRS running. In qualifying DRS can be run in all the zones and this track,

with its three zones, features the biggest proportion of DRS running over the lap on the calendar. Hence it's perfectly configured for McLaren. But the lap still had to be driven and Norris did so to spectacular effect.

The McLaren wasn't really a faster car than the Mercedes. But on the C5 tyres and with a Mercedes handling imbalance it was. When a car is working as well as the McLaren around here - it was generating tyre temperature quickly and pointing its nose into the apex with the bare minimum of steering lock - a driver can find laptime from within in a way that isn't possible when the car won't co-operate.

Hence Norris would only exaggerate Verstappen's dominance of this race, by bottling up the Merics behind him for 19 laps before its rear tyres finally gave out and allowed Hamilton to pass. But Bottas was only able to get by after Norris

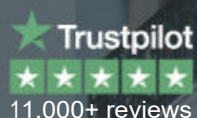
served a 5sec penalty in the pits for contact with Pérez when the latter was trying to pass.

Hamilton was later slowed by a broken 'cake tin' (the shroud around the brake disc which directs the air to the appropriate places) at the left-rear which forced him into a second stop, limiting him to a fourth place finish and putting Norris on the podium. Verstappen had the luxury of a free pitstop for new tyres on which he set the race's fastest lap. It was, he said, the most perfect race he could recall. ●

**"It was confirmation of Lando's talent, and the strides of McLaren"**



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# Trading places and paces

Red Bull's undercut gamble paid off in France, says **Mark Hughes**

Strategy becomes a whole lot simpler when you have a faster car than your opponent. Red Bull demonstrated as much in the two Austria races, but in the preceding Paul Ricard race things were rather more nuanced. The Red Bull advantage was not as clear-cut and once Lewis Hamilton had taken the lead at Turn 1 after Max Verstappen ran wide, it looked like he had the race under control. The Red Bull was not sufficiently faster that Verstappen could overtake on track and as Hamilton steadily built up a lead of over 3sec during the first stint, it was difficult to see any strategic way for Red Bull to break Hamilton's command.

But Mercedes underestimated just how big the undercut effect could be and mistakenly believed Hamilton's 3.1sec advantage over Verstappen before the Red Bull pitted would be enough to allow Hamilton to pit a lap later and rejoin in front. It wasn't.

Hamilton had used up more of the front tyres by the time he

came to do his in-lap than had Verstappen. By keeping out of Hamilton's turbulence zone Verstappen ensured he still had plenty of rubber by the end of the stint. Also, this is partly a function of the car's balance and its general performance. As Bottas observed in Austria: "If you're further off with the car you have to push harder and the tyres suffer." So Verstappen's in-lap was quick. Hamilton's in-lap was 0.9sec slower. More important, Verstappen's out-lap was very quick. The difference between that and Hamilton's concurrent in-lap was the big reason for the undercut working.

"My out-lap was good but I didn't expect the undercut to be so big, but when I went out I suddenly had so much more grip. Nobody – including us – expected to undercut Lewis so it just clearly showed that with new tyres you have one lap where everything feels a lot better. As soon as I was ahead, the next two laps, they didn't feel so great any more."

Bottas had pitted the lap before Verstappen and had gained 1.1sec on him by doing so. That informed Mercedes that Hamilton's 3.1sec gap would be enough. So why the big difference in Bottas' gain and that of Verstappen? The Mercedes was taking a whole lap to get the hard tyre up to temperature, the Red Bull was not.

When it then became apparent that at the pace Verstappen and Hamilton were setting, even the hard tyre was going to struggle to give the stint length required to finish the race, it was a question of who would pull the plug first in converting to a two-stop – which would oblige the rival to stay with the one-stop. Normally it's the guy behind with nothing to lose who would be expected to do this. The leader is throwing away track position in doing it – which he might not get back. Mercedes was reluctant to make the move because Hamilton would have come out behind Pérez and would have had to find

a way by him to catch Verstappen. With the Merc being down on straight-line speed to the Red Bull, this was judged too risky. It might have trapped Hamilton in fourth.

Red Bull, nervous that Mercedes was going to switch to the two-stop, anticipated it and brought Verstappen in. It was confident it could regain track position because of its straight-line speed advantage – and so it proved as Verstappen was comfortably able to pass Bottas and to catch Hamilton before the end. So much more tyre grip did he have it was simple to out-brake the Mercedes into the chicane.

Was there any way Mercedes could have won it? Hamilton: "If we had stopped earlier, before they had, come out ahead, and gone onto a two-stop, we could have won – but it would have still been difficult. If he had not made a mistake in Turn 1, they might have just led the race all the way."

## TYRE TACTICS

With pace advantage over Lewis Hamilton in the Austrian GP, Max Verstappen was able to hold first place after a pitstop, then built up his lead in order to take a second stop without compromising his advantage. On fresh tyres Verstappen took a late fastest lap and an extra point

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# JOHNNY HERBERT

## “Ross Brawn said, ‘We can’t have unregulated aggression on the track.’ But why?”

**D**RIVER PENALTIES WERE BACK on the agenda after the Austrian Grand Prix when Lando Norris was penalised for apparently forcing Sergio Pérez off at Turn 4, then Pérez incurred two himself for his actions with Charles Leclerc. Ross Brawn defended the decisions, saying, “We can’t have unregulated aggression on the track.” But why?

Written rules for racing shouldn’t exist, because aggression is part of it and always has been: Nelson Piquet’s sliding outside pass on Ayrton Senna in Hungary 1986; Nigel Mansell on Piquet at Stowe in ’87; Mansell and Senna inches apart in Barcelona ’91. There’s another word: intimidation. You get drivers who have a persona for being extreme in this regard - but what’s wrong with it?

My problem is you have rules now where you have to give space to the other driver. That was done from a safety perspective so that when you’re going into a corner you can’t force another car off the circuit. That is always a no-no and if you do it, you should have the book thrown at you. It’s dangerous, unsporting and it’s not racing. At the same time, overtaking should be difficult and you shouldn’t have to give up the place.

There’s precedent at Turn 4 at the Red Bull Ring because last year Lewis Hamilton copped a penalty when Alex Albon went off on the outside while challenging him.

I thought that penalty was totally wrong, just as it was in the Norris case. When you go into a corner with somebody on the outside, they are the one making the move. The guy on the racing line, why should he have to back off to give the other on the outside more room? The normal racing line is to run out wide. Then you get this argument, “Oh, but the other car was in front.” Now, I can make my car go into a corner ahead of another, as we’ve seen under braking around the outside at Turn 4. But I’ve still got to turn right and stay on the track. So does that give you the place because you are ahead? No.

Pérez and Leclerc later in the race was the same story, and I think the penalty was wrong - because of these rules for racing. Drivers

being as clever as they are, will force that rule about being ahead to come into play and because of the precedent that’s been set, the stewards’ hands are tied to be consistent on penalties. What makes it worse is that rules are usually written by people who have never been in a cockpit. I know Formula 1 has a driver steward, in this case Derek

Warwick who has normally been good at allowing racing to happen, and I’ve been the driver steward in the past too. But rules for racing is simply not what it should be about.

Consistency from corner to corner is also difficult. Remember Turn 3 with Charles and Max Verstappen in 2019, when Max dived down the inside, took the line and that forced

Charles to run wide? That was deemed okay and Max won the race. Very similar and clever from Max. Did he delay steering right a little? Probably. Did he lean on him on the exit? Yes. Good racing. But at Turn 4, it’s a penalty.

In contrast, the implication of rules on track limits has been very good. Sensors judge when drivers go off the circuit and you can end up with 20-30 deleted times from a session because they have been going across a line or kerb. I’m okay with that. Teams have an agenda that they want their driver to go faster and will argue that a sausage kerb is wrong because it’ll damage the car - so don’t go over the damn sausage kerb! It’s very simple. Taking the kerb away is not the skill.

What do we do about racing penalties? I feel a reset is required and the drivers have to be involved. I’d get rid of rules for racing and ask drivers if it is acceptable or not. You’d get into it where one would say “I was ahead” - but others will rightly say, “Yes, but you were never going to make it stick.” Let them race and sort it out between them. If they go off the track taking the outside line, that was the risk they took. I’m not condoning dirty driving where someone blatantly forces another car off. I tried being dirty in karting when I was young and it always went wrong. I wasn’t very good at it - so I stopped! But I never stopped racing hard. There’s a world of difference. ●

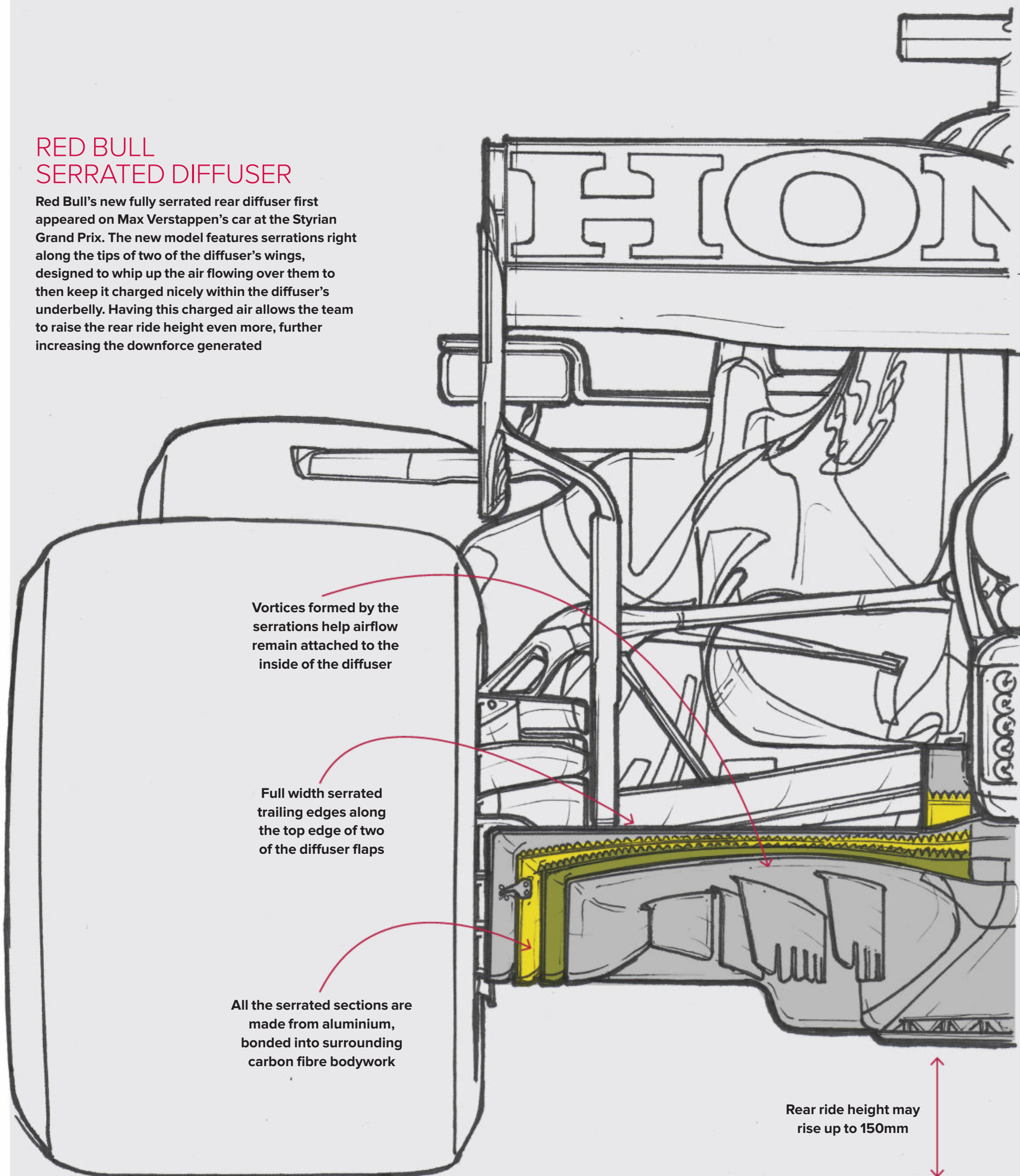
Johnny Herbert was a Formula 1 driver from 1989-2000 and a Le Mans winner in 1991. He is a regular contributor to Sky Sports F1 Follow Johnny on Twitter @johnnyherbertf1

**“I tried being dirty in karting. I wasn’t very good at it so I stopped!”**



## RED BULL SERRATED DIFFUSER

Red Bull's new fully serrated rear diffuser first appeared on Max Verstappen's car at the Styrian Grand Prix. The new model features serrations right along the tips of two of the diffuser's wings, designed to whip up the air flowing over them to then keep it charged nicely within the diffuser's underbelly. Having this charged air allows the team to raise the rear ride height even more, further increasing the downforce generated





# The angle of attack

Red Bull's high-rake concept is paying off this year, and its new diffuser is making a big difference

WORDS: MARK HUGHES ILLUSTRATION: CRAIG SCARBOROUGH

**R**ED BULL FIRST TRIED A DIFFUSER with shark teeth serrations along a gurney flap during Monaco practice. In that version, the serrations were at the outboard ends of the top of the diffuser only. This was raced in Baku and France. A more fully developed version with the teeth along the full width of the top of the diffuser appeared on Verstappen's car from the Styrian Grand Prix and on Pérez's from the Austrian GP a week later.

The whole aero philosophy of the Red Bull is that of maximising the static rake angle of the car (i.e. tail up/nose down). With a greater angle of attack, the underfloor generates more negative pressure, sucking the car harder into the track. At higher speeds (the downforce squares with speed) the tail of the car is forced down and along the straights it can thereby shed much of the extra drag associated with extra downforce. But there are practical limits to how far you can go with rake angle, one of which is mechanical (the angle of the driveshafts), the other aerodynamic (the tendency for the airflow through the diffuser to stall at low speeds/big ride heights). As the car slows the downforce bleeds off, the ride height increases and the airflow is at its slowest. So keeping that flow from just dissipating out the big gap beneath the diffuser becomes ever more difficult, and at some point it stalls and there will be a sudden reduction in rear grip.

Red Bull has managed to design its driveshafts to run at the extreme angles needed for a rear ride height of up to 150mm. But the aerodynamic problem was still imposing the rake limit before the mechanical one. What these diffuser serrations do - in combination with the gurney flaps which lift the outer airflow up, moving the point at which it merges

with the airflow through the diffuser further back - is create multiple vortices of spinning air around the inner roof of the diffuser. This keeps the airflow coming through there energised at lower car speeds. In so doing it makes it feasible to run a higher rake angle. This increases the downforce created by the underbody, especially at low speeds.

Once this breakthrough had been achieved, the car could be re-optimised aerodynamically. With more rear grip now being generated by the underbody, the optimum rear wing area/angle was reduced. It was notable at both Paul Ricard and the Red Bull Ring that the Mercedes was carrying significantly more rear wing than the Red Bull - and this was generally reflected in a straight-line speed advantage for the Red Bull. But that's just the beginning of the process. With more rear grip available, the whole car can be upgraded - and at the second Austrian race Verstappen's car was fitted with a new higher-downforce front wing. It could then be balanced with a greater rear wing angle. This had the effect of reducing the car's straight-line speed advantage at the Austrian Grand Prix, but for an even greater lap time advantage as the car was carrying even more total downforce. This can be seen from the comparison of the straight-line speeds of Verstappen running the new wing and Pérez with the old one.

## TRAP SPEEDS QUALIFYING AUSTRIAN GP

1. Pérez	319kph (198mph)
2. Verstappen	315kph (196mph)
3. Hamilton	313kph (194mph)



Pérez's older-spec diffuser featured the 'shark teeth' only on the edges. Verstappen's has them right across

**"This year's Red Bull is still very responsive to aero changes"**

The optimum wing level for Hamilton's Mercedes was clearly greater than that of either Red Bull.

At the optimum wing level any reduction in size will lose more time through the corners than gained on the straights. But where that optimum level is depends upon the efficiency of the car's aerodynamics and the power of its engine.

The high-rake Red Bull, which under the 2021 regulations derives more of its total downforce from the underbody than the Mercedes can (*see last month's F1 Tech*) runs more efficiently. The front and rear wing combined account for around 33% of an F1 car's total drag. The underbody accounts only for around 15%. So the more downforce that can be generated by the underbody, the more capacity it creates to reduce wing levels. Thereby the optimum wing level reduces accordingly.

With the old pre-serration diffuser, the Red Bull's optimum wing level would have been higher and the balance front-rear would have been based around that optimum. With an increase in rear grip from the new diffuser, the greatest lap time improvement could be found by reducing the rear wing. But with a re-optimisation of the whole car, if the front downforce could be increased to match the enhanced rear (via a new front wing), then the greatest lap time improvement could be found by once more going up slightly on the rear wing angle.

F1 car development is always about optimisation loops and it is clear that this year's Red Bull is still very responsive to them under the changed regulations. ●



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# Good month, bad month

James Elson charts the ups and downs of the F1 circus

GOOD



## ▲ BORING PAUL RICARD

Those vertigo-inducing stripes might be a bit unnerving, but Paul Ricard delivered. Criticism rained down on Le Castellet, but as soon as racing got underway, passing moves were in abundance and the strategy games ramped up, all leading to a thrilling finale.



## ▲ GUENTHER'S GIFT

When your Haas represents an old Lada on pace terms, and is being driven by someone who seems to think they're negotiating Nizhny Novgorod, all you can do is laugh, really. And give your driver a spinning top to take the mick out of him.



## ▲ RUSSELL vs ALONSO

There were shades of Dijon '79 (sacrilege, I know) as the old and new did battle for one single point. Russell's supreme talent is dragging the FW43B to where it shouldn't be.

## ▲ AUSTRIAN ANTHEM

As F1 pre-race entertainment goes, surely never have we seen anything quite like the Austrian national anthem being played in the style of Van Halen. Lando Norris tried not to laugh before Domenicali, Todt and Brawn all observed proceedings with utmost decorum.



## ▲ FULL CAPACITY CROWDS

With a full capacity crowd at a GP for the first time since Covid struck, Max Verstappen's orange army descended in their hordes. The sea of orange smoke was like a scene out of *Gladiator*, the Dutch mass looking ready to march on an unsuspecting small nation.

BAD



## ▼ N-OCON EFFECT

Prior to a hopefully glorious homecoming, Alpine handed Esteban Ocon a big juicy three-year contract as it declared seeing shades of Alain Prost in the young Normandy native. Ocon then repaid Alpine by finishing, err, 14th, 14th, DNF... Very Prost-like.



## ▼ FAILED FORECASTING

For all F1's incredible number-crunching, mind-bending, fabric of the universe-tearing technology, no-one seems to be able to predict the weather. Ever. Will it ever rain on a race day?

## ▼ RECKLESS RÄIKKÖNEN

After rear-ending his team-mate in Portugal, another embarrassing moment came for Kimi Räikkönen in Austria as he took out celebrity bee-keeper Sebastian Vettel in a ferocious battle for 12th place on the last lap. Is the Iceman starting to lose his touch?



## ▼ THE CHAMPIONSHIP FIGHT

Do we think it's all over? It might be now! With Verstappen almost cantering off over the Styrian mountains, a season which was shaping up to be a classic is starting to look rather flat. We can only pray that a magical update from Merc has the desired effect.



## ▼ KERB THE COMPLAINING

Several teams had a good old moan to Michael Masi about the aggressive kerbs at Paul Ricard. Easier said than done, but perhaps the best-paid drivers in the world should, just maybe, not go off the circuit?



F1 RETRO

## Swiss timing for a Siffert tribute

Extraordinary tales from the *Motor Sport* digital archive

WE SOON APPROACH 50 years since Jo 'Seppi' Siffert won his final grand prix in Austria, just a few months before the Swiss suffered a tragic death at Brands Hatch.

Even by the romantic yet tragedy-tainted standards of '60s F1, Siffert's life was particularly poetic, as was poignantly recalled by David Tremayne in our October 1991 issue.

The Swiss took his initial inspiration from Raymond Sommer, inspired by the Frenchman's aggressive artistry behind the wheel as he danced his Gordini round Bremgarten in 1948.

Tremayne describes Sommer as "a man to whom the manner in which the game was played was more important than the result".

DJT says that 'Seppi' endeavoured to emulate this stylish approach to racing, combined with an "indomitable will to win".

As a poverty-stricken child Siffert sold rags before working as a car salesman, then driving through the night to races, as well as once calling the president of Switzerland to vouch for him when refused entry to a local hillclimb.

The article also includes a touching tribute from Siffert's F1 boss Rob Walker, anecdotes from biographer Jacques Deschenaux and the heart-wrenching tale of his last day from BRM manager Tim Parnell.

To read the full story visit [motorsportmagazine.com/archive](https://motorsportmagazine.com/archive)



# C'mon, make some noise

No lover of EVs, **Andrew Frankel** is nonetheless impressed, a bit, by the RS e-tron GT – rival to the benchmark Taycan

**I**F THE AUDI E-TRON GT RAISES ONE question more than any other, it is simply this: why not buy a Porsche Taycan instead? Under the skin these electric four-door coupés are as close as makes very little difference indeed, but the Porsche provides a far wider model range – with versions both more powerful and more affordable than anything Audi has to offer – as well as two body styles with the recent introduction of the Taycan GranTurismo. And, well, it's a Porsche and comes ready made with an as-yet unchallenged reputation to be the best electric car yet offered for sale.

If there is an answer, it lies in the detail. In engineering terms, there are only two kinds of e-tron GT, the base car which retails for £79,000, and the RS version which costs £111,950 before you start adding packages to it. The car I tested was in Carbon Vorsprung guise, which will set you back £133,340 before any extras.

With the standard car the important point to remember is that unlike the base Taycan,

it comes with four-wheel drive, the long-range battery and two electric motors as standard. It has 120 additional horsepower too, which is not bad given the quite modest £9000 premium charged over the Porsche. Its real rival is the similarly powerful Taycan 4S, but Porsche not only charges almost £4000 more for that, you'll still have to pay extra for the big battery. The RS version is equivalent to the Taycan Turbo and offers a little less power for a little less money.

The other reason is the look. I happen to really like the styling of the Taycan – I probably prefer it to the Audi – but judging from the reactions of others, mine appears to be a minority view. I think the Porsche has the more audacious, less predictable look, but there's no denying the Audi's svelteness of line nor the way it combines presence with finely judged detailing into a shape unlike that of any other Audi, yet which couldn't be anything other than an Audi.

I'm less convinced by Audi's approach with the interior. Do not mistake me: it's very



With a range of 293 miles, the RS e-tron GT still falls short of the 400 miles of rival Tesla Model S

fluently executed into a cohesive whole and utilises materials which fully justify its six-figure purchase price. All it's lacking is a certain sense of occasion, of celebration even, that this is Audi's first all-electric sporting car. In fact in the way its screens default to age-old Audi fonts and present all their information in a very straightforward and predictable manner, it is a little too much like many other Audis in general, and the e-tron SUV in particular.

I'm not suggesting it would be a good idea for Audi to compromise the effectiveness of the man/machine interface and I supported the decision to play it straight with the SUV, but in a car that looks like this and costs so much, I felt a little more ambition and star quality would not go amiss.

You could say the same about the way it drives but I've thought the same about every EV and am learning to accept that their dull powertrains and immense mass just go with the territory. The e-tron RS feels pulverisingly fast at maximum attack, but there's no joy to it, any more than there is in a Taycan. The powertrain is a device for doing a job, and as interesting in the way it does as any other electrical appliance – so not that interesting.



The interior is suitably impressive but the information system lacks the fanfare for Audi's new direction





## “Ride quality is exceptional and it handles with the same security and grip as other fast Audis”

The chassis interests me more. Although I would urge everyone buying either the Porsche or Audi to specify four-wheel steering, I'd say Audi's engineers have done an excellent job in tuning the e-tron to behave like an Audi, at least on the air springs fitted to the test car. Ride quality is exceptional and it handles with the same security and grip as other fast Audis, but without the associated understeer. Instead it stays quite neutral to a high limit and is nothing if not accurate and composed as a result. In all, it's not is much fun: there's no feel through the steering, no sense whatever of the car trying to involve you in what it's up to. While it's perfectly prepared to put on a show if asked, it leaves you in no doubt that your side of the bargain is to sit still and watch.

You may be surprised, then, to learn that I liked the e-tron RS rather more than I expected. I feared it might just be a slightly more rubbish Taycan, but it's really nothing

### AUDI RS E-TRON GT CARBON VORSPRUNG



- **Price** £133,340 ● **Engine** Front and rear electric motors, 93.4kWh battery
- **Power** 590bhp, 637bhp (overboost)
- **Weight** 2347kg ● **Torque** 612lb ft
- **Power to weight** 217bhp per tonne
- **Transmission** Two-speed automatic, four-wheel drive ● **0-62mph** 3.3sec
- **Top speed** 155mph (limited)
- **Range** 293 miles (WLTP)
- **Verdict** Verging on fun without ever getting there, but a match for the Taycan.

of the sort. I still prefer the Porsche because it has been rather bolder in most areas of its design and execution, but the e-tron has an identity of its own. You never sit there thinking you're in a disguised but otherwise badge-engineered Taycan.

And in certain ways, that identity sits more comfortably within the constraints of electric car design than the Taycan. I admire Porsche for trying so hard to make its car interesting to drive, but there's no doubt that Audi was right not to bother and to concentrate on staying true to its own brand values which, let's face it, are rather more closely aligned to what EVs find easiest to provide than Porsche.

That said, I have a strong hunch this is not the right model. My guess is that a nicely specified standard e-tron GT with a few choice options but a price still well below the six-figure mark would be a far better bet. And when I've driven one, I'll let you know. 🟢



# If you like soft tops...

Convertible BMW is no sports car but there's little to fault it

**T**HIS IS AN UNDEMANDING CAR for an undemanding kind of driver. When I drove its coupé sister I was really rather taken with it, pointing out at the time that the M4 would have to be quite something else to be worth the additional outlay. Now, having driven both, I'd still stay with the 440i. But this convertible has an entirely different feel to it.

That folding fabric roof adds an enormous 150kg of weight to an already scarcely light car which means that once I'm on board this is almost a two-tonne machine. It's softer, slower and of course less structurally sound too. Which means that if you drive it like a sports car, it doesn't take long before it starts to get flustered.

It's just not that kind of car. It makes a much better case for itself as a boulevard cruiser, if that's what you want. It's saloon-car quiet with the roof up and wind management with it stowed away is very good. The ride is exceptional on all but really difficult roads and



The electric folding top is newly developed and can be opened and closed at up to 30mph

the interior feels worth every penny of the purchase price. It's a car for wafting, with the added provision of a smooth slug of power from the ever excellent straight-six turbo motor should anything get in your way.

It is not, remotely, my kind of car but if the idea of it makes you think it could be yours, the reality is unlikely to disappoint. This then is a really good car, just for someone other than me. **AF**

## BMW M440i XDRIVE CONVERTIBLE

- **Price** £59,650
- **Engine** 5 litres, 6 cylinders, turbocharged, petrol
- **Power** 369bhp ● **Weight** 1890kg
- **Power to weight** 195bhp per tonne
- **Transmission** Eight-speed automatic, four-wheel drive
- **0-60mph** 4.9sec ● **Top speed** 155mph
- **Economy** 36.2mpg ● **CO<sub>2</sub>** 177g/km
- **Verdict** Great for wafting about.

# My heart is with another

The GLE 63 S is a fine SUV, so why dream of a G-Wagen?



**I**'M NOT DEFENDING THEM, BUT IF YOU were minded to buy a truly profligate Mercedes SUV, it is kind enough to give you a choice, all powered by its monster 4-litre twin-turbo V8 motor. You can have this GLE 63 S (or its stretched seven-seat GLS sister) or, and this is the interesting bit, a G-Class, better known to most as the G-Wagen or even Geländewagen.

And having spent time recently in both the GLE and G, I can confirm that not only is the GLE over £30,000 cheaper, it's better in almost every way. It is faster, more stable, more spacious for passengers, more frugal (as if such things mattered to customers of cars such as these), it has a much better ride quality, is quieter and has more up-to-date tech. Just plain better in other words. You'd be an idiot to spend more on the inferior G-Wagen.

An idiot like me. The GLE 63 S is a fine example of its kind, if that's the sort of car you're after, but it's not long before it becomes just another device for doing a particular job quite well and rather rapidly. The G-Wagen

never lets that happen. Every single journey, however short or long, is an occasion. Its noise alone makes you laugh, its shape and unique approach to the open road a novelty that never wears off. I quite liked the GLE but it does not stand proud in my memory. The less capable but infinitely more charming G-Wagen does. And if that's not why you're spending a six-figure sum on an SUV, it's hard to see why else you might. **AF**

## MERCEDES-AMG GLE 63 S

- **Price** £110,533 ● **Engine** 4 litres, 8 cylinders, turbocharged, petrol
- **Power** 603bhp ● **Torque** 626lb ft
- **Weight** 2420kg
- **Power to weight** 249bhp per tonne
- **Transmission** Nine-speed automatic, four-wheel drive
- **0-60mph** 3.8sec ● **Top speed** 175mph
- **Economy** 22.8mpg ● **CO<sub>2</sub>** 281g/km
- **Verdict** Class act, but no G-Class.



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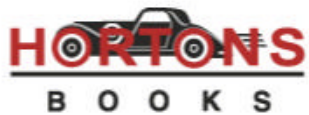
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# One man's Le Mans triumph

A fresh look at the early years of Bentley reveals how the British marque put the roar into the '20s, says **Gordon Cruickshank**

**C**OVER SOUNDBITES FROM Alexei Sayle and Robbie Coltrane tell you this has wider targets than the motoring field, but then as with his previous book *High Performance* Grimsdale brings wider views to our little world. It means that while his story - Bentley's Le Mans racing pre-war - is something that we've covered at length in these pages at the time and ever since, let alone the scores of books on the subject, we can expect some different viewpoints to go with the intended different readership. A look at the bibliography confirms this: not just scads of Bentley and racing titles but others on economics, politics and social history.

It would have been astonishing had Grimsdale discovered any rich new sources so far on and he doesn't claim to (except that he does tap unpublished memoirs of 'Benjy' Benjafield thanks to the racing doctor's grandson). What he does so well is to assimilate a huge body of events and views into an elegantly packaged story, stitching the racing into a tapestry of the times and the lives of the people involved. It's also a very human tale drawing on a large number of personal memoirs, whether it's a passing mention of Jean Chassagne's background or an explanation of how closely WO Bentley's story ties up with Sammy Davis, later to be the hero of that great victory wrenched from defeat (Grimsdale says "not so much from its jaws as somewhere deep down in its digestive system"), the 1927 White House crash which piled all three Bentleys into five other cars.

I liked his comment about Bentley's financial saviour and triumphant Le Mans hat-tricker: "Barnato was the closest 1920s Britain came to a real life Jay Gatsby." Although



**Racing in the Dark**  
Peter Grimsdale  
Simon & Schuster, £20  
ISBN 9781471198267

I don't think Gatsby ever kept wicket for Surrey or built his own full-size pub in the basement of his country house as 'Babe' did.

Even if you've read a lot about the Bentley story, the book's early chapters are a valuable reminder of how WO gained the experience and the confidence needed to plunge into building what he wanted - the finest touring car on the road, "docile yet virile". Even though his mechanical aptitude was clear from childhood, it was in the end the toss of a coin that sent him into a car dealership where he began to improve and race the DFP cars that boosted his blood octane and led to so much. I learned a lot about his wartime endeavours on the Western Front with aero engines and you can see how those lessons gave him a head start in building the cars that would proudly bear the Union Jack around the French classic and so many other tracks.

It was news to me that his associates in




1930 winners Barnato and Kidston, flanked by Clement and Watney



the fledgeling company considered buying RAF Tangmere as a base, ironically close to where Rolls-Royces, then their main rivals, are built today. Instead they ended up at Cricklewood and began to build their masterworks - at yet another of those worst possible times, as Grimsdale explains. Rolls, Napier and Wolseley were struggling or failing and even Austin called in the receivers before being bailed out. Profit was hard to harvest at either end of the scale and WO was determined to create the best, leading to an enterprise which gulped down money and returned little for its backers. Except of course superb machinery and flag-waving victories before the name was swallowed and diluted by Rolls-Royce in the 1930s.

You might not think the subject of death duties would turn up, yet Grimsdale points out that 40% slices off every big estate was "a seismic shock to the landed gentry" so that






Frenzied night-time  
action surrounds the  
Speed Six of Clement  
and Watney, placed  
second in 1930

## “Dorothy Paget might have stepped fully formed from the pages of an Evelyn Waugh novel”

Bentley's one-time customers were replaced by the new brash set to whom scandal was spice to their lavish lives, provoking outrage among people “a fair few of whom had their share of blonde breakfast companions in their Mayfair flats but would never have received a guest at the same time”. That nicely sets the scene for the Bentley Boys and their racy lives. And women too: Birkin backer Dorothy Paget “stepped fully formed from the pages of an Evelyn Waugh novel” while Mrs Bruce gets her glory for the 24-hour record she set in a works 4½. “My God, what a good driver that woman was,” said one of the crew.

*Racing in the Dark* presents a very clear outline of that Rolls-Royce takeover and the unpleasantness that surrounded WO's five-year handcuffs and prevented him seeing his own name at the chequered flag of any further racing. The shock and bitterness felt by him, his loyal employees and the Bentley Boys is well conveyed; so is the cul-de-sac he was forced down, as well as the knife-edge timing of Lagonda's 1935 Le Mans victory which provided his escape road just when Rolls-Royce's hardest negotiator was trying to bind him for a further term - “like a hostage” as WO described it.

It's a shame that the photos are small and predictable in their central wedge, but as Grimsdale tells them it's the stories that are colourful, weaving first-hand memories together with his easy writing style so the tales of the racing are grounded by what was going on around at the track and back home. You can't help feeling that this £20 volume would save the new reader buying a lot of other books on Bentley's racing. 

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# Sent from Coventry

Sixty years ago one car wowed Europe after a hair-raising dash from Browns Lane to the Geneva show, says **Gordon Cruickshank**

**T**HERE'S A PHOTO IN THIS HUGE and typically weighty offering from Porter Press that takes me back 35 years. It's the dim interior of a barn with a row of scruffy Jaguars all in need of attention. The barn is on Philip Porter's farm HQ, "And that," Philip told me reverently, "is the world's oldest E-type Jaguar." I looked at the remains of the once beautiful coupé, seeing rust flaking off the nose where the letters 9600 HP were dimly visible through the grime.

"Eventually I'll restore that," said Philip, and I wondered how long it would take.

It did take a long time, fitted round Porter's many other enterprises including Jaguar clubs and his busy publishing house, but lately 9600 HP has been recapturing its life as Jaguar's original press car with a glorious story.

That story began with racing driver Bob Berry's non-stop dash from Coventry to Geneva to get the car to the '61 show for press day. Transport difficulties meant the firm feared 9600 might be the only car there, and as it was only finished the night before, Berry's sprint was crucial. He made it with minutes to spare, and the E-type burst upon the world. All of this development and the panics to get the first car ready is supported by extensive first-hand memories.

Given Porter's huge output on Jaguar, especially E-types, a good deal of the material here is familiar, though there's new information on Malcolm Sayer, so it's good to get onto the star car's own story, relayed in intensive detail. MOT certificates and bills for maintenance, letters from owners, even photos of where the car lived, mix with period images of the car. He was even able to reunite Bob Berry with the car, seen peering into the shambles of its pre-restoration interior.

But this is also Philip's story - how he got into writing and collecting, his first E-type, his friends and colleagues in the business. A shot of him in tweeds and deerstalker reminds me that like WB he is a member of the Sherlock Holmes Society, and a qualified airship pilot.

Having bought the car in 1977, it was not until 2000 that he was actually able to drive it, and naturally the restoration at CMC is closely reported, as is its second bite at fame. The almost overwhelming parade of information, including its press coverage, verges on indulgent - but then this is one very special car.



**9600 HP: The World's Oldest E-type**  
Philip Porter  
Porter Press, £45

## TJAARDA – MASTER OF PROPORTION

*Gautam Sen*

Not so well known, perhaps, but Tom Tjaarda shaped some very pretty cars in his time at Ghia and Pininfarina including the first Ford Fiesta, Fiat 124 Spider and De Tomaso Pantera, and many concept cars and one-offs on Ferrari and other running gear. Using much first-hand input from the late designer, Sen does a good job of collating his life, illustrating many concepts and designs that I had never seen, though he perhaps exaggerates his influence - all designers respond to current fashions. Tjaarda had a real sense of proportion, perhaps due to his architectural origins, and it's a shame he's overlooked. **GC**  
*Dalton Watson, £110*

## THE MASERATI A6G 2000

*Walter Bäumer*

Amazing to think anything as rare and exotic as an early Maserati could be scrapped, yet the chassis listings in this detailed book show that it happened. In fact the bulk of this book consists of individual histories of the Trident's profitable 1950s straight-six GT and the very different bodies the four main Italian coachbuilders fitted to them. The section on design and development, while brief and staccato, is generously illustrated with large photos and documentation. Handsome but expensive - like the cars it portrays. **GC**  
*Dalton Watson, £91*

## THE SPIDERS' WEB

*John Bradshaw*

Basil Davenport's spindly Spider hillclimber and the two cars it became is/are just about the most recognisable things on the hills, with their GN heads poking out each side of the razor-edge bonnet, and this cheerful self-published work gives chapter and verse on their twin stories. A thick floppy paperback with surprisingly good photo quality, it mixes reports (many from *MS*) and results with colourful reminiscences. **GC**  
*JRB Publishing, £40*

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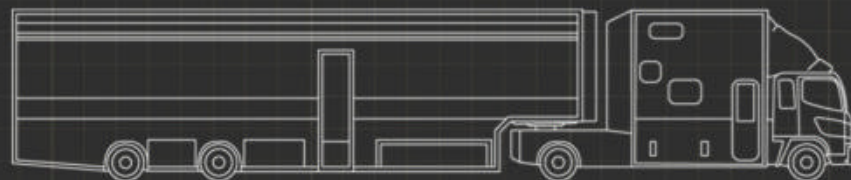
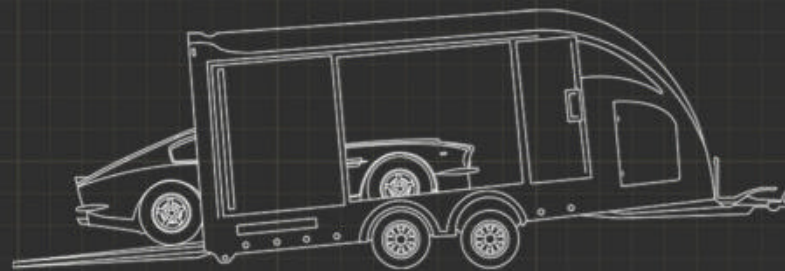
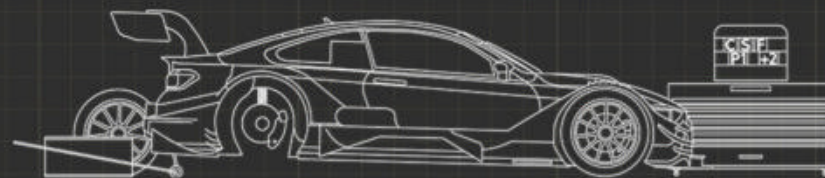
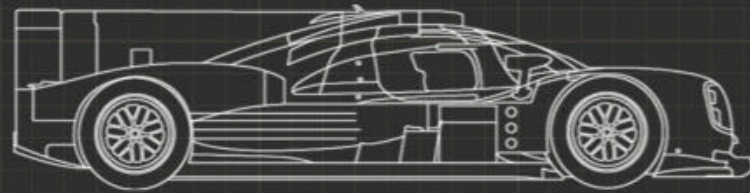


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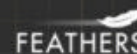
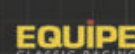
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Golden-era F1, sports cars, GT and touring cars are all represented at The Classic

# Rolling back the years

The British Grand Prix has been and gone – now it's time for the old-timers to take to the track at Silverstone's Classic weekend

**The Classic at Silverstone, July 30 – August 1**

**R**ACING FROM MORNING UNTIL evening, a funfair and then live music to take you into the night, there isn't much that The Classic at Silverstone doesn't offer to keep fans of all ages engaged throughout.

This year, 130 car clubs are set to join the festivities over the three days with on-track action celebrating generations of motor racing.

From the 60th Anniversary E-type Challenge to historic Formula 1 and 2 machinery and the Classic Mini Challenge, there's plenty to keep an eye on for each day of the event.

Sports cars haven't been neglected either, with a collection of racers from the '50s, '60s and '70s each filling much of the itinerary while pre-war Bugattis and Bentleys ensure there's an eclectic mix of motoring to enjoy.

For the younger motor sport fan, there's a vintage funfair complete with dodgems and a carousel while the shopping village offers a bit of retail therapy.

There's plenty of choice too when it comes to your tickets. Want to make the most

of your weekend? VIP and hospitality packages are an option. Want to camp out for the weekend? Book a camping spot for all three days. Just looking to attend a specific race? Single-day tickets are still available.

The RetroRun option has already sold out. This is a three-day package for owners of pre-2001 cars of special interest, which includes a trip to Tuthill Porsche. However, spectators will be able to see RetroRunners take a lap of the GP circuit on Sunday.

As far as summer motor sport events go, The Classic at Silverstone is a great option to take in the sights and sounds of motor racing through the years.



To round off the weekend, see the RetroRun cars take a lap of the Silverstone circuit

## BRITISH GT – SNETTERTON 300

**August 7-8**

Supercars in the Norfolk sunshine will pit McLarens against Aston Martins and Lamborghinis in the British GT-headlined weekend. British Formula 3 racing supports the bill on what is sure to be a great two days of action.

## INDYCAR – MUSIC CITY GP

**August 6-8**

A new event for IndyCar takes the series to Nashville for a street course race that promises thrills and spills. Pato O'Ward is the only repeat winner so far this year but Álex Palou's consistency has him leading the championship as the season enters its final stretch.

## NASCAR – GO BOWLING AT THE GLEN

**August 4-8**

Always a popular race on the NASCAR schedule, Watkins Glen will be one of the final four races for drivers to book their names into the playoffs. After adding yet another road course victory to his CV at Road America, Hendrick Motorsports' Chase Elliott is surely favourite to take road win number eight.

## MOTOGP – GP OF AUSTRIA

**August 13-15**

Part two of MotoGP's summer return at the Red Bull Ring, the Grand Prix of Austria has been a reliably eventful race in recent seasons. Miguel Oliveira won the Styrian event last year and he could do with another victory to take the title fight to Fabio Quartararo.

## FORMULA E – BERLIN E-PRIX

**August 14-15**

Not quite the six-race extravaganza it was last year, Berlin hosts just the two races as part of the 2020/21 Formula E season finale. Antonio Felix da Costa secured two wins there along with the championship last season. Will anyone repeat the feat this year?

### MORE AUGUST EVENTS

- August 13-15** WRC Ypres Rally Belgium, Ypres, West Flanders
- August 15** Festival Italia, Brands Hatch
- August 20-22** British Superbikes, Cadwell Park





*the journey  
begins here*

Beyond restoration for a life less ordinary...

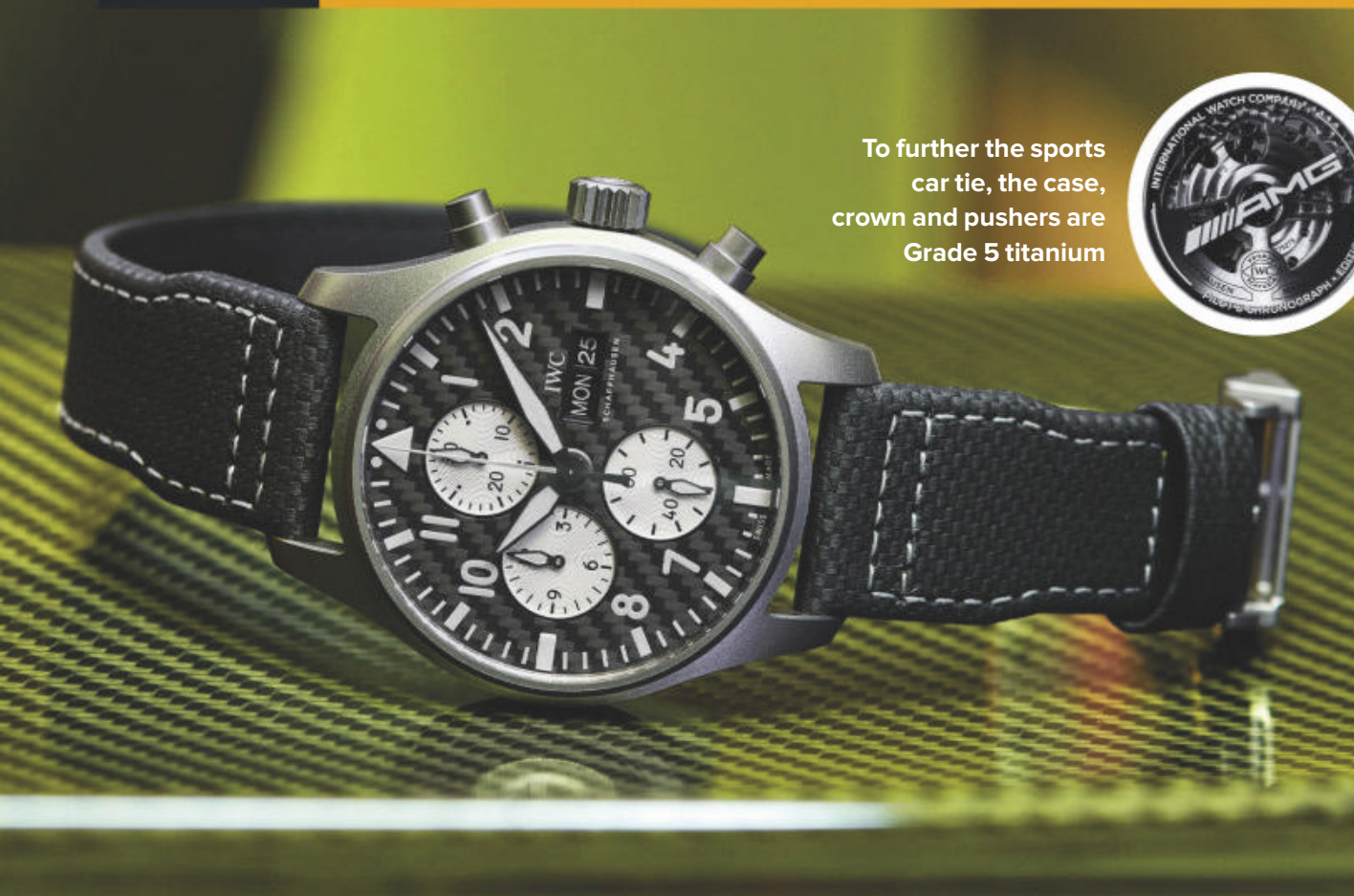
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# Aviation meets F1

The mark of Mercedes' high-performance subsidiary brings car-racing know-how to the Pilot's Watch Chronograph collection

**B**ACK IN 2005 IWC FLEW A FEW watch hacks up to Arjeplog in Sweden, that snowy wasteland where car makers go to develop tyres and anti-lock braking systems, and to see how vehicles fare in conditions so cold that engines have to be warmed overnight with electric blankets.

The point of the trip was to announce a partnership between IWC and AMG. As well as inaugurating the collaboration, the junket also marked the full acquisition of AMG by Daimler AG as well as the 50th anniversary of IWC's Ingenieur wristwatch which, in its original 1955 form, was marketed for its anti-magnetic properties derived from the movement being housed behind a dial and inner case of soft iron.

For the next few years, the AMG/Ingenieur line was invariably mentioned whenever talk turned to cars and watches, and there was even a special IWC edition of the AMG CLS 55 coupé - but then things went quiet.

It seems that IWC was rather more focused on pushing its environmental message, and it was probably deemed inappropriate to be promoting the wonders of AMG gas-guzzlers at the same time as the brand was preparing to wave off ecologist and IWC ambassador David de Rothschild on his 2010 voyage from San Francisco to Sydney aboard a catamaran made from 12,500 recycled plastic bottles.

In 2012 the AMG connection was fired up again when IWC was announced as 'official engineering partner' of the Mercedes-AMG Petronas Formula 1 team. The deal has continued ever since, inspiring a swathe of Ingenieur models and bringing the brand to prominence through drivers Lewis Hamilton, Nico Rosberg and George Russell.

Although Hamilton has often been spotted wearing IWC's classic Big Pilot, the majority of special models from the partnership have been Ingenieur-based - but not the latest. This time around, the brand has turned to its aviation line with the launch of the Pilot's Watch Chronograph Edition AMG and says that, from now on, AMG options will be a permanent feature of the Pilot's Watch collection.

This inaugural 43mm model is the first Pilot's Watch Chronograph to have a lightweight titanium case which, says IWC, gives a matte grey appearance "inspired by AMG's signature Selenite Grey Magno paint". In keeping with the high-tech world of F1, the dial is made from carbon fibre with contrasting silver sub dials, beneath which hides IWC's in-house Calibre 69385 column wheel chronograph movement.

A sapphire crystal case back emblazoned with the Mercedes-AMG logo enables the mechanism to be seen in its micro glory. *IWC Pilot's Watch Chronograph Edition AMG, £8500. iwc.com*



BELL & ROSS BEGAN ITS PARTNERSHIP with the Renault F1 team in 2015, since when it has produced five models detailed with Renault yellow. This year's re-branding to Alpine has led to a range of chronographs with touches in blue. The steel cushion-cased BR V3-94 A521, *above*, and the square-cased BR 03-94 A521 are £3600 and £5400 respectively, with the third, the BR-X1 A521, being the flagship and limited to 50. It has a 45mm square titanium and ceramic case, and costs £16,900. *Bell & Ross Alpine F1 editions, from £3600. bellross.com*



THE MILLE MIGLIA CLASSIC Chronograph Raticosa celebrates the Raticosa Pass that has formed a key stage in the Italian road race. Limited to two editions of 500 examples with either off-white or varnished black dials, the 42mm stainless steel-cased chrono is one of the coolest watches to have been inspired by the event thanks to its vintage look. The sapphire crystal back is decorated with the 1000 Miglia logo and a 'Raticosa' inscription. *Chopard Mille Miglia Raticosa special edition, £5150. chopard.com*

**Precision** is written by renowned luxury goods specialist Simon de Burton



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Image courtesy of the Mike Varndell Collection





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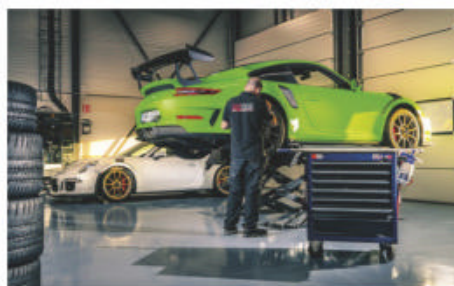
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*THE MOTOR SPORT INTERVIEW*

# Gordon Murray

Motor racing has had more than its fair share of game-changers, but within that select group the Brabham and McLaren designer rides high – and he hasn't finished yet

WORDS: ROB WIDDOWS PHOTOGRAPHY: RICHARD DAVIES





Carlos Reutemann, seated, in a Brabham BT42 gives feedback to designer Gordon Murray at the Nürburgring in 1973







Pens, compasses, rulers, hole punch – the desk of Gordon Murray. Left: his first ever sports car, the IGM-Ford from 1967

**I**n DECEMBER 1969 A 23-YEAR-OLD SOUTH African engineer came to England to look for a job, boarding a coach to Norfolk in the hope of work with Lotus. They were laying people off however and now he was living in a bedsit with no money. So he went to the Brabham factory where Ron Tauranac thought he'd come for an interview for a vacancy in the drawing office and gave him the job. After 16 years at Brabham, winning two World Championships, he moved to McLaren where his cars won a further three titles with Prost and Senna.

By 1991 Murray was ready for a new challenge, having brought refuelling, air jacks, revolutionary suspension and aerodynamics, and new materials to the sport before leaving the pitlane to design the McLaren F1 road car. Keen to satisfy his hunger for ever more innovative and disruptive engineering Professor Gordon Murray CBE (for services to motoring) established his own company in 2007 and revealed the T.50, his 50th car, in 2019. Today Planet Murray has its headquarters at Shalford, Surrey and a new manufacturing campus at nearby Dunsfold Park - from where he looks back on his extraordinary career.

**Motor Sport:** *As a teenager in Durban you had designed, built and raced your own car, the T.1, so why did you pack your bags and come to England in the depths of winter?*

**GM:** "Music and motor racing, the loves of my life, that's what brought me here in a freezing

cold winter, ice on the pavements, and I hadn't brought a proper coat. In the late 1960s there was so much great music and of course it was the place to be for racing. I was first and foremost an engine designer but what I really wanted to be was a racing driver. I'd won some races in South Africa, been national champion in a car I designed and built, but my height and weight were against me and I never had enough money. So I'd written to Colin Chapman and got an appointment to see Brian Luff at Lotus before I arrived in England.

"I went to Norfolk by coach because at home we still had steam trains, and they were slow, so I thought the coach would be faster. That turned out not to be the case. Anyway, Lotus weren't selling any cars, there was a mini recession, so there were no jobs. Not for a minute did I think I'd get into Formula 1 at that stage so I started building a little sports car, the T.2, and I almost took a job at Ford - but when I saw the design office, drawing boards everywhere, there was a guy drawing a door handle. I knew I didn't want to do that having designed my own cars.

"Then I saw a job advertised at Fairoaks Airport where Alan Mann was based, and Len Bailey was working on the Ford F3L. We talked but he decided they didn't have the budget for another designer and then, a week later, he changed his mind... so I went to see him

again. While I was there one of his guys told me, 'Len will never make up his mind and there's a job going at the Brabham Formula 1 team so you should go down there.' So I did, knocked on the door, and Cathy the receptionist showed me to Ron Tauranac's office in a Portakabin. I told him all my academic qualifications but he wasn't at all interested - very Tauranac. Then he showed me a metal part and asked me how I would make it, so I told him, in detail, and he said, 'Fine, you've got the job.'

"As I was leaving a much older guy turned up for the job interview. Tauranac had got the wrong person so I was in the right place at the right time. I couldn't believe it, Formula 1, and I was 23 years old."

**"I couldn't believe it, Formula 1, and I was 23 years old"**

**M** *This was your big break and the rest, as they say, is history. Bernie Ecclestone bought the team, fell out with Ron Tauranac, made you the chief designer in 1972 and gave you absolute creative freedom.*

**GM:** "Well, Bernie tells people that Tauranac advised him not to keep me on so the first thing he did was make me his chief designer. He loves a good story. Nearer the truth is that I'd had an offer from the Pederzanis who'd come into F1 with Tecno and a flat 12 engine which was a bad Ferrari copy. He wooed me with a house in Italy, twice my salary, but I turned him down. Alain de Cadenet was also



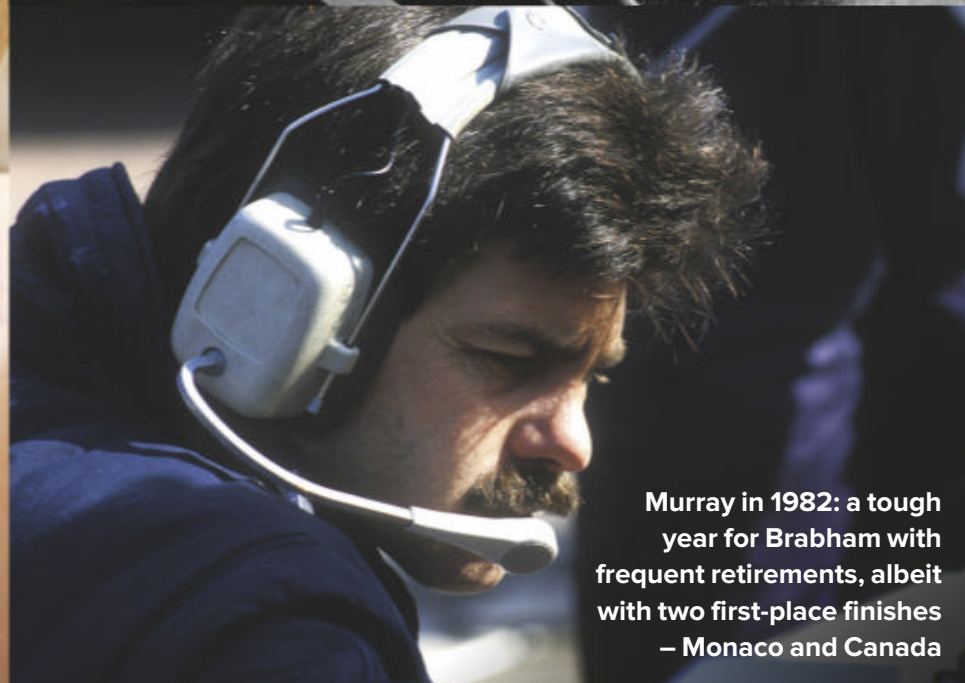
Bernie Ecclestone allowed Murray creative freedom at Brabham, which led to a slew of innovative designs



Reutemann in the wet before the 1975 Dutch Grand Prix, with Murray and Ecclestone in attendance



Murray in 1982: a tough year for Brabham with frequent retirements, albeit with two first-place finishes – Monaco and Canada



talking to me about a car with a Cosworth DFV for Le Mans and I think all this got back to Bernie who fired all the other guys and said, 'Right, you're now the chief designer. I want a brand new car for next season.' I told him I'd agreed to do the car for de Cadenet and he said, 'Okay, you can moonlight that.' So I was working ridiculous hours, finishing at Brabham at 9pm, working on the de Cadenet car until 3am and then back to Brabham for 7.30am.

"That winter living in an unheated flat was hell but Alain's car really helped launch my career. At Le Mans we annihilated the Porsches and the Alfas, running just behind the Matras. We did the whole thing, including buying the DFV, for less than £5000. Alain offered me £250 to design it and a half share in the car - but when he sold it, I think he forgot about that. Those first two years in England were incredible... I designed four cars - my own Formula 750 club racer, my Mini Bug road car, the Le Mans car and the Brabham BT42. I still wanted to race and 750 was basically a free formula so I designed a radical car, lay-down driving position, 284kg, and I found a way of making the body a monocoque although you

weren't really supposed to do that within the regulations. Once Bernie had promoted me I just ran out of time to go racing - but I still have the car, the T.4, the de Cadenet car being T.3."

**M** *The Brabham years gave you total freedom to express your creativity and your innovative ideas despite being so young. Was that something you demanded when you became chief designer?*

**GM:** "Bernie trusted me. He likes to find that 'unfair advantage' just as much as I do and he'd picked me because I was innovative during the time I worked for Tauranac. Most of all, Bernie is a racer, and he let me go out on a limb. The early cars, BT42 and 44, were like no other grand prix car. They were tiny, short wheelbase, very small track, wacky aerodynamics, lots of fuel behind the driver for the first time. They were very different, he loved all that, and just let me get on with it. We were constantly looking for ways to be better than everyone else, not by a little bit, but by a lot.

It wasn't about looking for loopholes in the rulebook, it was about innovation, about the way you approached the design process, a state of mind, how you can improve what's gone before. A good example is rising rate rod-operated suspension, an innovation on the BT44. Everyone was using those stupid rockers but they are an un-damped spring, the most horrible things, and now every single car uses pull or push rod suspension.

"We had a couple of failures but as an innovative engineer you have to accept that and learn from it. I don't accept that the BT55, the low line car with the BMW engine tilted on its side, was a failure. The concept was dynamite, but the problem was that neither [engineer] Paul Rosche of BMW nor I could get the oil scavenging to work. All the oil got stuck in the head, and we could never get the oil temperature under control. Also, it was the first all-carbon tub, a very long wheelbase, and in retrospect it just wasn't stiff enough. However, I took the drawings, the exact same

**"I don't accept that the BT55 was a failure. The concept was dynamite"**



Was the BT55 flawed? Murray thinks not. It became the basis of the McLaren MP4/4 when he moved from Brabham at the end of 1986



geometry, to McLaren at the end of '86, where we had a nice little Honda V6, and when we put the MP4/4 in the tunnel the aerodynamic results were magic, so much better, around a second and a half per lap better."

**M** *We should mention the Brabham 'fan car', the BT46B, because it was not only highly effective but also highly controversial. What led you to putting a fan on the back of the car?*

**GM:** "It was desperation actually, absolute desperation, because in '78 it was dawning on us how the Lotus worked, with the venturi and the wing 'pods' all the way down the car. When I laid a typical wing section out on our BT46, the bit where the venturi turns into the diffuser was right where the cylinder heads of the engine were because the flat 12 Alfa engine was much bigger and wider than a DFV or a Ferrari. I said to Bernie, 'We've had it because we're never going to get a clear wing section like the Ferrari or the DFV-engined cars.' So, the first idea I had was to do a twin monocoque car. The bulkhead finished behind the driver and the engine was bolted to the bulkhead, then there was a second small

monocoque which bolted to the back of the engine, which held the fuel tank. A quill shaft ran through a tube in the tank and then the gearbox went on the back of that. This now moved the cylinder heads of the engine into the lowest part of the venturi but I worked out this would be 25-35kg heavier and very complicated to work on. So it was a mess and back to square one.

"I read the FIA rulebook again and landed on the infamous article on aerodynamics. 'Any device whose primary function is to have an aerodynamic influence on the performance of the car has to be firmly attached to the sprung mass.' So, a fan driven through the gearbox would cool the radiator, which was mounted over the engine, as well as create downforce. When the FIA measured the flow of air through the fan and through the radiator they found that 60% of the air was for cooling and 40% for downforce, meaning that aerodynamics was not the fan's primary function. That's how the BT46B came to be."

**M** *You worked very closely with Nelson Piquet and Niki Lauda at Brabham and with Prost*

*and Senna at McLaren. Which of these gives you the most satisfying memories?*

**GM:** "I think it has to be Nelson because he came to us as an apprentice, if you like, from Formula 3 and stayed with us for seven years. He was very much part of the family and of all the drivers, he got much more involved with the team. Later on the drivers started being treated like gods, which I didn't like. They'd come and go as they pleased. Nelson came to the office every single day on his bicycle. He'd rented a flat near Chessington and he'd come to the factory, and sit on the corner of my desk asking me why I was designing this or that. He came to every wind-tunnel session and of course he won two World Championships which speaks for itself. He's the one I remember most fondly. He was the most rounded, but of course it was also great working with Niki, Ayrton and Prost later on."

**M** *How important was good feedback from the drivers when you were engineering your grand prix cars?*

**GM:** "Very important. I mean, in the early days Bernie would put a pay driver in the second **G**



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**Alain Prost, leading, and Ayrton Senna dominated F1 in 1988 in the McLaren MP4/4**

car and most of them, their feedback was non-existent. There was no telemetry so you relied totally on what the driver was telling you about the car. It's far easier to interpret what they say if you've raced yourself, and you know what a car driven over the limit feels like, what understeer or oversteer means to you. Nowadays everything is measured for you, and there's a computer that tells you what to do with the car, so it's totally different."

**"I am sick and tired of all the people living off my reputation"**

**M** *At the end of 1986 you moved to McLaren when John Barnard went to Ferrari. How far were you able to take full control of the design and engineering processes under Ron Dennis?*

**GM:** "After 17 years I thought I'd had enough of Formula 1. We'd won two World Championships, and I was already thinking about designing some sort of supercar. But... Ron had lost Barnard to Ferrari and he was desperate for someone to head up his design team. My first reaction was absolutely not. I'd had enough. In my last year at Brabham we'd lost Elio de Angelis. I'd never lost a driver before. Bernie was heading towards running Formula 1, he'd lost interest, so it was time to go. Ron was very persuasive, however. So I finally agreed and told him I wanted to be in charge of everything technical, design, testing, procedures, systems, composites, wind tunnel - whatever, it was, I wanted to be in charge of it, not as chief designer but as overall technical director. Not only that, but I would only do it for three years. That's enough for any human being. He agreed, gave me absolute freedom."

"The first thing I did was buy three autoclaves and set up a composites department - we'd had one at Brabham for years. The '87 car was already done, so I was stuck with that, and we won a few races. Neil Oatley was my main man. He had fantastic experience. So he and I sat down and looked at the next two years which were incredible - the TAG-Porsche for

one year, then the Honda V6, and then the change to normally aspirated. We had to design four cars in 18 months. I led the design team, putting Neil on all the normally aspirated cars and Steve Nichols on the '88 car."

"I am so sick and tired of all the people living off my reputation, you know. This thing about Steve Nichols being chief designer is the biggest load of rubbish you've ever heard. The MP4/4 was not designed by Steve Nichols, I can promise you that. I put him in charge of the monocoque and the front end while Dave North and I did the rear end, the aerodynamics, and a radical new dry-sump three-shaft gearbox working with Pete Weismann. It was a pretty radical motor car. I'd taken the Brabham BT55 drawings with me to McLaren so the basic concept of the MP4/4 was the BT55, with the lay-down driving position, and a far better rear end, with the Honda V6, and then I also designed new front suspension, using a pull rod with a roller and track system. If you look at the two cars together, the BT55 and the MP4/4, you'll see the design is almost identical."


"The McLaren was a pretty radical car which won 15 of the 16 races in 1988, not just because it was fast, but because we'd brought in a whole range of new systems to ensure reliability. I introduced post-race meetings, captured all the things that cracked or broke with a life-ing system, gearbox rigs to monitor the passage of the oil, a new way of torsion testing the engine and the chassis, plus a I had a separate test team set up in Japan."

**M** *Looking at Formula 1 today, the regulations are very prescriptive, little room for creativity and innovation, and technically it seems oddly sterile. What changes need to be made do you think?*

**GM:** "We spoke about this many years ago and I recommended quite a long list of changes that could be made to reduce costs and improve the racing. [See Murray's ideas for F1 in *Motor Sport*, September 2012]."

"It's really funny because many of them have been adopted. I'm not saying that's because of what I said back then, rather I think it was the natural way to go. I stand by everything I said at the time but what I will say now is that one of the most ridiculous and costly things is the 13in wheels. The rest of the world has gone to 18in wheels - I mean, trying to package carbon brakes in a 13in wheel is just stupid. So, not before time, they are changing the wheel size, but I agree that there is far less room for innovation and creativity than there used to be."

**M** *Let's talk about road cars. The McLaren F1 and now the new T.50, just two of the 50 cars you have designed and built. Were these always part of your long-term plans?*

**GM:** "Yeah, probably from when I was a teenager. I've always loved styling, as well as the engineering, and when I first saw a Lamborghini Miura I thought, 'Wow, I'd love to do the ultimate sports car.' Luckily Mansour Ojjeh and Creighton Brown at McLaren were very supportive and Ron Dennis also wanted to expand the group beyond just an F1 team. He didn't want me staying in F1 and working 



**Murray believes the 'analogue' T.50 is superior to his McLaren F1 road car**



After the T.50, there is still another car to come from Murray – and it will be electric



One of Murray's proudest achievements came in 1995 when the McLaren F1 LM stormed Le Mans

for the opposition... so, after I'd done my three years in the team, he was keen for me to do the road car. I always wanted the central driving position, I still do, and 'spec'ing' that BMW V12 engine with Paul Rosche, where I was able to have a lot of influence, was very satisfying. The fact that it went on to win Le Mans and world championships is what makes me the most proud of that car. It was never designed to do that. I had an F1, of course, but I sold it four years ago.

"The T.50 is a better car but the McLaren F1 won Le Mans and you can never take that away from it. I started Gordon Murray Design in 2007 and among many other projects, we're building T.50 prototypes. I think the T.50 will be the last great analogue car from a sheer driving and engineering point of view. I've worked closely with Cosworth on the engine from the ground up, nothing borrowed. I think also it will be the last great V12 - 3.9-litre, 12,000 revs, an engine throttle response time of 28,000 revs per second, so in a lightweight car like the T.50 you get that instant punch, the way it just barks into life. You only get that with a normally aspirated engine and it can't be replicated by anything else. It's a great engine and I really can't see anyone else doing another V12 in the future."





Below: as well as a lifelong interest in sports cars, Murray is also a music aficionado – which is why he ended up in the UK in the late-1960s



“We’re building 12 prototypes of the T.50, then we’ll do a handful of pre-production cars for homologation, media work, teaching people for service and after-sales. Then from January next year we start the production line. Of course I would love to race the car. Sadly there’s nothing for us in the new regs at Le Mans but we are talking to Stéphane Ratel about his GT series. We’re incredibly busy, starting a new electronics business alongside our core business which is the iStream manufacturing process that I invented when I started working with composites and realised their potential for cars which are both strong and lightweight. Since 2007 we’ve gone from just eight people to 160 and by the end of the year we will have 250 staff across the group. Next month we’re starting an iStream electric vehicle project so the T.50 won’t be the last car I do.”

## “Right now, electric cars are not an attractive proposition”

**M** *Everyone is talking about the end of fossil fuels but some of us are reluctant to buy an electric car right now. How do you see the future for the car industry?*

**GM:** “Unfortunately we are having electric cars pushed upon us when they have the wrong

battery technology. For electric cars to be truly good you need two things: you need enough clean energy to plug them into and you need the next generation of batteries. The energy density is so poor with the current lithium ion batteries and you’re lugging around hundreds of kilos of dead weight. The honest truth is, petrol is just too good. Petroleum is so energy dense. A typical air to fuel mixture in an internal combustion engine is about 15 to one so you only carry the one unit of petrol, and the 15 units of air are just all around you for free. With electric you need 9000 cells, half a ton of battery like a Tesla, and it’s only 15% efficient. You’re carrying that weight around all the time.

“I know we can’t go on using petrol for ever but right now electric cars are not a terribly attractive proposition. If we jump forward 30 years, when we are making green energy everywhere, and we have batteries with three times the energy density, then they start making sense. So right now we are having electric cars forced upon us too early - they are too heavy, some weigh more than two tons, and the tyre and brake wear is horrendous. They are simply a stop gap.”

“Hydrogen would be the perfect answer, but it takes so much energy to make hydrogen, and we need to find other ways to make it. Then there’s the infrastructure, the storage of high-pressure gas which can be dangerous, but we can get over these problems given time. At the moment making a litre of hydrogen uses more oil than it takes to make a litre of petrol. Assuming we can get round all these issues hydrogen might well be the answer. Due to climate change electric is upon us much earlier than it should be.”

**M** *When we started talking, you said you came to Britain for the motor racing and the music. Are you still playing in a band when you’re not making cars?*

**GM:** “Music is always in my life. I play guitar and drums, and my band lasted until 1988. It was called Missing Money because we reckoned we had the sex, drugs and rock’n’roll but not the money. Anyway, I have a wonderful collection of vintage jukeboxes, a 1954 Seeburg HF100R sits next to the drawing board in my office. You could get them for hundreds of pounds years ago, now they’re worth many thousands. I also have a huge record collection, and a great sound system, so yeah, music is still very much a love of my life.”





# MY Greatest RIVAL

## DEREK WARWICK vs THE WORLD & DAVID PIERCE

Before his exploits in F1, BTCC and Le Mans, a teenage Superstox sensation from Hants was learning his trade the hard way...

**I**'VE HAD SO MANY GREAT RIVALS BUT I'm going back to my Formula 2 Superstox days from 1971 to '74, racing with my dad and my Uncle Stan. It was three Warwicks against the world. It was very tough but we had so much fun and they were so proud when I made it to Formula 1.

We'd be welding our Warwick trailers all day, racing three or four nights a week around the country, building the cars from scratch, repairing them, prepping the engines, the whole thing.

The racing was very aggressive, angry even. You'd come out with battle scars and there were fights in the paddock. I was just a 17-year-old squirt, a welder from Alresford, but I won the English Championship in 1971 and the World Championship in '73. Superstox taught me many lessons that helped me when I got to Formula Ford and we were about ten abreast going into a corner.

Dave Pierce, car no320, was my biggest rival, not the only one, but an amazing driver. There were the tough guys from Reading we

called the 'Reading mafia' but more about them shortly. Dave Pierce was super-quick, a multiple European champion, a world champion, and he taught me how to race more calmly in a field of 40 or 50 cars on a short oval. He taught me how to slow my brain down, relax more in the car, how to win nicely, look after the car and win without being super-aggressive. I learnt to race with my eyes shut as well. On the shale tracks you'd get so much mud and dirt chucked at you. I'd be caked in the stuff on a wet night.



Derek's father Derry, no40, in a Superstox melée. Top: alongside Dave Pierce, no320

My other big rival was Tony May from the Reading mafia. I taught him a lesson early on. For nine races on the trot I got put in the post - we didn't have barriers, just posts like railway sleepers - while I was leading on the last lap. One night, I was leading the final on the last lap and Tony came up behind me, shoved me into the post, and went on to win. So, I backed out, waited for him to come round on his victory lap, drove across the central reservation, hit him in the side and barrel-rolled him over the fence. I was banned for three months but when I came back nobody would touch me. They knew that we were serious, there to win.

Great rivalries make a driver even more selfish, more driven to win. My dad beat me in a race at Aldershot, and that was unusual. His engine was just so powerful, so my mechanic and I worked all night, took his engine out, put it in my car, and put my engine in his car. The next race we went out and slaughtered everyone. How selfish was that? And people ask me about skullduggery in Formula 1..."

DAVE BALDWIN





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# Flashback...

For two decades **Maurice Hamilton** reported from the F1 paddock with pen, notebook and Canon Sure Shot camera. This month we're en route to a bash before the 1986 Detroit Grand Prix when a young lady catches the eye of Gerhard Berger

**I** MAY HAVE BEEN IN A MINORITY, BUT I ENJOYED the Detroit Grand Prix from the very first race in 1982. The streets were bumpy and angular but there was something about being in the United States and staging a motor race in the heart of a riverside metropolis.

Another attraction, it must be admitted, was the fact that we were on the Ford Motor Company's doorstep and the auto giant took the opportunity to throw a not-to-be-missed welcome party in their magnificent museum each year; 1986 was no exception.

Benetton had BMW engines, but that did not stop team boss Peter Collins and his driver, Gerhard Berger, from accepting the invitation. I cadged a lift with them on the 30-minute drive west to Dearborn.

With the party due to start at 5.30pm, we hit rush-hour traffic. As we pulled up at a red light, a racy blue Chevrolet Camaro drew alongside. It took Berger a nano-second to appreciate that the driver was a very attractive woman on her way home. It was also the work of a moment to open his window and engage in conversation - with the lady happy to reciprocate.

Sitting in the back, I could only hear Gerhard's end of the dialogue. The gist of it seemed to be: "Can I take you to a very good party?" Whether through extreme optimism on Berger's part or a smiling affirmative response from the burbling car to our right, I couldn't be sure but the net result was Gerhard opening his door and jumping out. As he began to quickly walk around the back of the Camaro, the lights turned green - and the lady floored the throttle. So did Peter Collins.

I looked back to see a future Ferrari driver making an undignified leap towards the pavement and safety. Peter pulled into a layby some 100m further on. Berger ran towards us (cue photograph through the rear window). Just as he was about to reach the hire car, we roared off once more, safe in the knowledge that Gerhard, had he been driving, would have done precisely the same thing. In fact, knowing the mischievous Austrian, he might not have stopped.

Eventually, he was allowed back in. After all, there was no time to mess about; we had a party to go to.

The weekend didn't get much better for Gerhard when his engine cut out after just eight laps of the Grand Prix - meaning he had failed to score for a second time within a few days.







# THE LONG AND WINDING ROAD

Midway through the GT World Challenge Europe season, Sky Tempesta's Chris Froggatt talks team spirit and the Ferrari 488

**C**HRIS FROGGATT AND EDDIE Cheever - son of the retired Formula 1 driver - already have the GT World Challenge Sprint Cup Pro-Am title to their names having won the championship in 2020. That was added to with a runner-up finish in the Endurance championship too and, as Froggatt jokes, there's only one way up from there this season.

"We work together better and better every race weekend," he says. "There's one more place to go from there and we're only going to get more and more competitive. We can both perform at the level we want to, and even though the competition will be challenging, we can manage a strong result this year."

Continuity will play a key role as both will join forces once again in the series along with Hong Kong driver Jonathan Hui for Sky

Tempesta Racing. Global events kept Hui away from the first round at Monza and the team struggled as a result. Froggatt believes that chemistry and understanding of one another will be crucial in the rest of the GT World Challenge Endurance season for the team's hopes of the '21 Pro-Am crown.

"It really can't be replaced," Froggatt says. "A good example of that was Monza. We had Stefan [Görig] join us and we hadn't worked





◀ Sky Tempesta's Ferrari 488 GT3 Evo 2020 gave the team five wins

▶ From left: Chris Froggatt, Jonathan Hui and Eddie Cheever III

▼ Upcoming races include Brands Hatch, Nürburgring, Valencia and Catalunya



A career highlight for Chris was winning last season's GT World Challenge Europe Sprint Cup Pro-Am title

with him before. Not that he wasn't perfectly able to do the job, but the differences - how he likes the car set up, doing driver changes a different way, all of that, it really does make a big difference. That relationship - it really is invaluable."

Since that opening round of the season, the team rebounded to take victory at Paul Ricard to reignite their season.

A thorough postmortem after the Italian race led to a revamping of practice protocols for the Sky team as they aim to extract every ounce of performance where possible to secure another championship.

"We lost a bit of time in pitstops in the last couple of rounds," Froggatt says. "At Monza, there was a problem due to driver error and then with it being the first race of the year, the team was a little slow with tyre changes. It's easy to simulate the driver change when you're sat around but when you've driven for an hour and everything's hot, it's quite a different scenario. We've been simulating a lot more live changes and I think we've gained from where we were previously."

Focus now switches to Spa-Francorchamps on July 29-August 1. For Froggatt, it's one of the best endurance races of the year and a brilliant chance for the team to score well with its Ferrari 488 GT3.

"Spa is undulating, has fast- and medium-speed corners and it's very technical as well," he adds. "That's something that I enjoy and really like with the Ferrari. It's a car that is really suited to high- and medium-speed corners. It's just a real pleasure to drive and Spa is personally one of my favourite tracks. The expectations are pretty high this season."

All the action from Spa will be available to watch on Sky Sports F1. 





## LETTERS

**R**EFERRING TO YOUR EDITORIAL ON WOMEN IN RACING [FROM THE EDITOR, JULY], if you want to see accomplished female racers in action, come to Santa Pod when the FIA European Drag Racing Championship returns - next year now.

For the record, the reigning (four-time) FIA European Top Fuel champion is a woman: Anita Mäkelä of Finland. The current European record holder for elapsed time is a woman: Maja Udtian of Norway (3.806sec). The current European record-holder for terminal speed is a woman: India Erbacher of Switzerland (318.96mph).

It's an old story, but we bang on year in, year out about international female drag racing successes over the decades, to little effect. One's outlook no doubt depends on whether one considers the racing of motor vehicles over short distances in straight lines to constitute 'real' motor racing. Some don't, we know full well - but by that same token Usain Bolt presumably was not a 'real' runner.

ROBIN JACKSON, SANTA POD RACEWAY

**I** was disappointed to see in the August issue a myth about the origins of Euro NCAP [*Formula 1's saviour or sinner?*]. Maurice Hamilton stated that Max Mosley "conceived Euro NCAP". This is untrue. This incorrect story was promoted a long time ago by Richard Woods when he was FIA press officer. Richard dismissed my concerns, stating that he was only interested in promoting Max and the FIA. Max did much to help promote Euro NCAP but he did not conceive it.

Having developed a new frontal impact test for Europe, I was asked by the European Transport Safety Council to present my findings to a meeting in Strasbourg chaired by Max Mosley who became interested in promoting the adoption of both this test and the new side impact test. I subsequently asked if he would be interested in supporting one of my new programmes, UK NCAP, and expanding the programme to become Europe-wide. Max immediately became an enthusiastic supporter.

In 1997 the UK Department for Transport agreed to launch the results of the first UK NCAP tests under the new title of Euro NCAP. Keith Rogers became the first secretary general of Euro NCAP and I continued to take the technical lead. Max Mosley became the first chairman and used the FIA's offices to help with its promotion.

When I took over as secretary general, I was interested in expanding outside Europe and set up meetings with the other NCAP programmes around the world. The aim was to start World NCAP. This was not achieved by the time I retired. Subsequently, the FIA started Global NCAP, based on the frontal crash test procedure that I had devised.

Although Max Mosley was very effective in promoting Euro NCAP, it would be incorrect to claim that he conceived it. I think that it is a shame that it was thought necessary to claim more than he and the FIA achieved.

I hope that this clarifies the position.

PROF ADRIAN HOBBS CBE, NORTH HAMPSHIRE

**C**ongratulations on Rob Widdows' excellent discussion with Mario Andretti and Jackie Stewart on racing's greatest all-rounders [*All-rounders, July*]. I have followed Mario's career since watching him finish third as a rookie at Indianapolis in 1965. I've seen his versatility as a driver in F1, Indycars, Can-Am, NASCAR and Formula



No photographs: thankfully Ian Bunker disregarded 'Silverstone Syd' to get this image

**I**n 1964 I was at Silverstone for a general testing when an innocuous-looking Ford van arrived with a largish single-seater on a trailer. It looked just like any other club racer. Out jumped half a dozen boiler-suited Japanese guys with HONDA in large red letters on their backs. It all seemed a very low-key occasion for a works team. At that point of course they were better known for motorbikes.

I always had a camera with me but the famous 'Silverstone Syd' spotted me and said, "No photographs." It was the first Honda Formula 1 car, the V12 RA271 and they were entering F1 just four years after producing their first road car. Like Ferrari and BRM, Honda built their own engine and chassis.

One of their team drivers, the Californian Ronnie Bucknum, was on hand for this

shakedown of the car. It was too much to resist, and a little later on when I was at the pit railing I grabbed a couple of cheeky snaps. Knowing I had something a bit special I contacted the local newspaper, the *Hemel Hempstead Gazette*, and they ran my picture with a bit of text that I supplied. I think I got about a tenner for it. So now I was a real snapper. Great to be there at the outset of what turned out to be a mighty player in the grand prix world over the coming years.

IAN BUNKER, BROADSTONE, DORSET

**I** was surprised to read that Max Mosley thought that the car industry was not interested in research into safety features and even blocked their implementation [*Formula 1's saviour or sinner?*, August].

Over the past decades the industry and governments and research organisations must have spent millions if not billions on the subject. Crash tests front, rear and rollover, seatbelts, seat anchorages, airbags, laminated glass, fireproof materials, recessed controls, padded interiors, energy-absorbing interior and exterior structures, collapsible steering columns etc, etc, not to mention primary safety like anti-lock brakes, handling, tyres... The list goes on.

This has all been reported and published - for example my copy of the proceedings of the 5th international Experimental Safety Vehicle conference is over 3in thick. Much as I like older cars, in terms of safety there is no contest between those of say the 1960s and now. If I was going to have a crash I know which I'd choose to be strapped in.

KEITH MARTIN, LINFORD, MILTON KEYNES





Great all-rounder Mario Andretti was quickest to the top at the Pikes Peak Hill Climb in 1969, as photographed by Harry Kennison

5000. One other unique race that is often overlooked is the Pikes Peak Hill Climb which, back in the day, was part of the USAC Championship. I took the shot [above] of Mario in 1969 in his STP King-Chevy sprint car on his way to first overall in the ‘Race to the Clouds’. Just one month before, Mario had won his only Indy 500. He’s definitely at the top of my list for greatest all-rounders.

HARRY KENNISON, CHARLOTTESVILLE, USA

In December’s ‘Matters of Moment’ you rejoice in the robust health of the flagship historic circuit events organised by Peter Auto. This year, I have covered numerous grassroots historic events throughout Europe for *Historic Motor Racing News* and they do not share in this robustness. The glamour of Peter Auto and Masters has robbed the smaller events of their most important machinery. In the meantime, circuit rental fees have soared due to increased safety demands. To make ends meet, grassroots organisers find themselves accommodating indifferent cars whose most important feature is that they allow for cheap racing. Owners of lovingly restored classic Giulia TIs are now being blown off by rusty 205 GTIs.

There are no easy solutions. One might argue that the homologation system should separate the truly classic from the merely old. Regional co-operation might also help, as the meetings counting towards multiple national championships consistently boast the best entries. Organisers may want to innovate with new demo formats, which might lure back hesitant owners who do not wish to expose their valuable investments to the rough and tumble of all-out racing.

JURRIAAN TAS, UTRECHT, THE NETHERLANDS

Chris Medland’s look at the contrast between Indy’s 500 ‘show’ and F1’s Monaco [*Race against time, August*], and Damien Smith’s and Maurice Hamilton’s analysis of Max Mosley’s impact and legacy on motor sport [*Formula 1’s saviour or sinner?*, *August*] both caught my eye. Perhaps genuine private enterprise has something to do with what Chris was looking at, while its removal in one key area - where the FIA went along with allowing non-private enterprise funding for F1 circuits elsewhere in the world - suited some, but not everyone.

I had an opportunity to quiz Max on this topic and believe he felt discomfort admitting his inability to rule on certain matters. Perhaps his genuine concern that safety matters were within his power to influence for the good helped him rationalise the impact his presidency had on the sport in other areas.

MIKE KNIGHT, ABBOTS LEIGH, SOMERSET

I am glad that the caption writer for Doug Nye’s article on the Ferrari F1-2000 [*Red revolution, August*] is not my energy supplier. In the information about brakes we are informed that the braking energy ejected in a lap of Monza could be 255kWh - “enough to light a 100W bulb for 24 hours-plus”. This is sufficient to power a 1000W kettle for 255 hours, and a 100W bulb for 2550 hours. How far would it drive a Formula E car?

JOHN CLEGG, CHADDERTON, OLDHAM

In the Austrian Grand Prix, Norris and Pérez were both penalised for the same tactic pulled by Verstappen against Hamilton at Tamborello earlier in the season for which he received no censure at all. It’s not clear how driving standards are being managed; it is

evident some drivers consider aggressive defence of the race line is their absolute right but this season we’re seeing inconsistency in the awarding of penalties. Whatever F1 decides, let’s at least have some consistency - and let’s hope stewards enable rather than hinder close racing.

JON HOLLANDS, MATLOCK BATH

Having just read Andrew Frankel’s comments about the plural of Lotus being Lotus [*Diary, August*], I recall reading of Colin Chapman making just this comment years ago. Which reminds me of a night spent marshalling in the forests on the 1975 RAC Rally. The conversation got around to the plural of Stratos. The answer lay with the classics student who had been cajoled along for the ride. Stratos is not a ‘proper’ word but if it were it would be Greek and the correct plural would be Stratoy or Stratoi. Don’t believe I have ever seen these used!

ROD HUNT, SEATON, DEVON

Sad to see it takes the influence of a worldwide pandemic to enable the return of the Safari Rally after 19 years away from the WRC.

This event was a breath of fresh air in a sanitised WRC, and I hope the Safari and Acropolis remain in the Championship when we return to normal. Please take note, manufacturers and championship organisers.

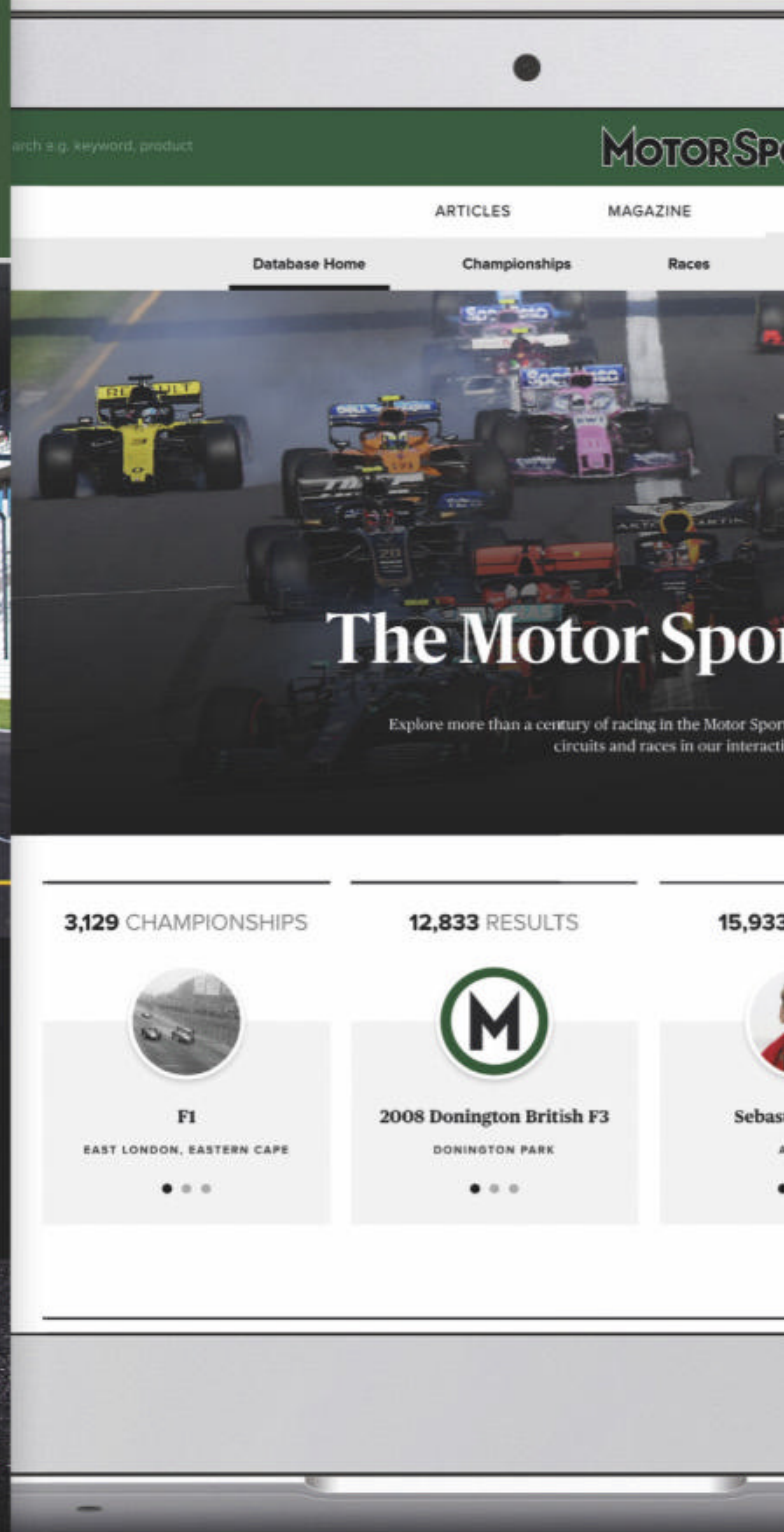
BOB CLOUSTON, HARTLEPOOL

#### CONTACT US

Write to *Motor Sport*, 18-20 Rosemont Road, London, NW3 6NE or e-mail, [editorial@motorsportmagazine.co.uk](mailto:editorial@motorsportmagazine.co.uk)

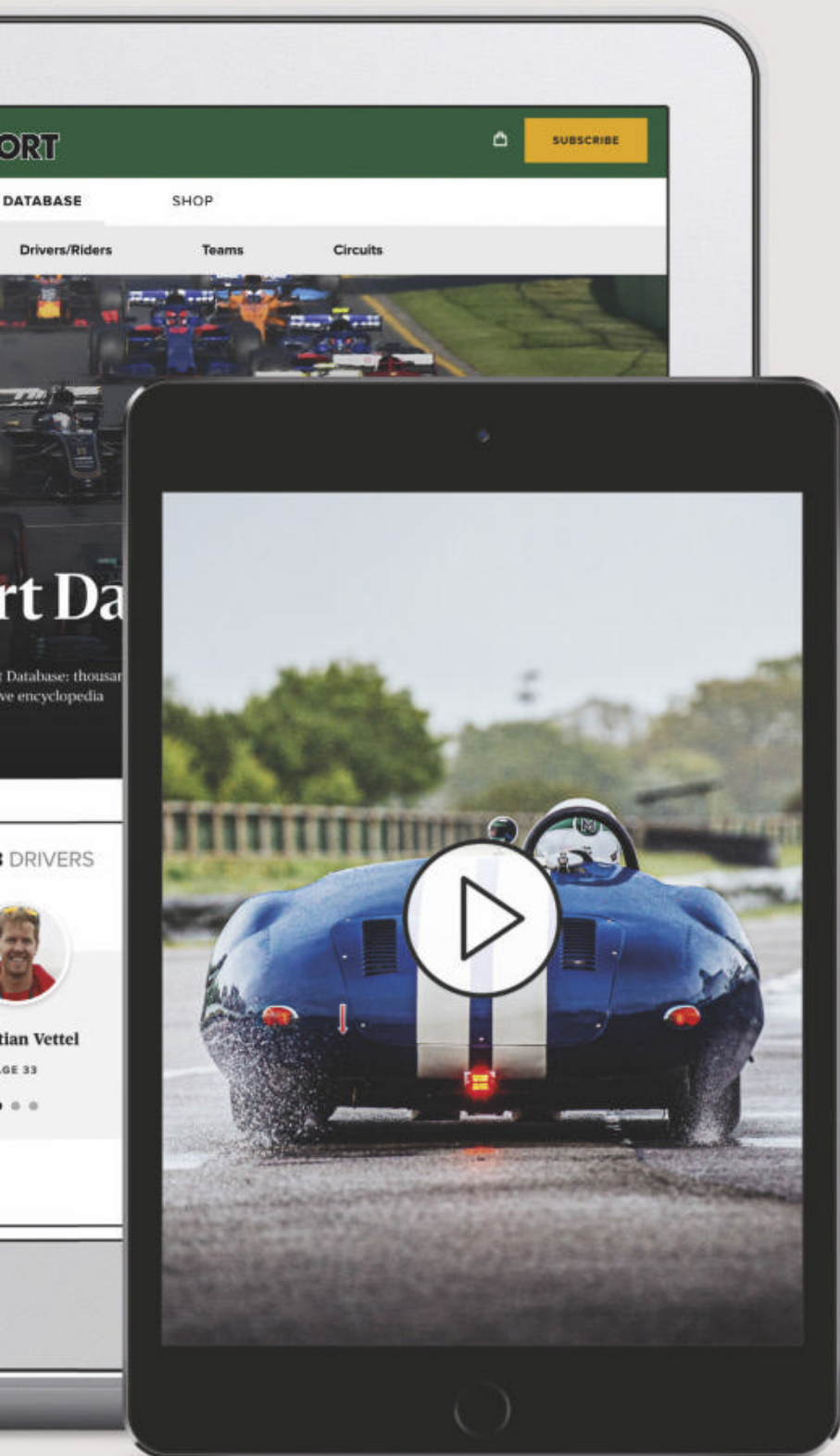


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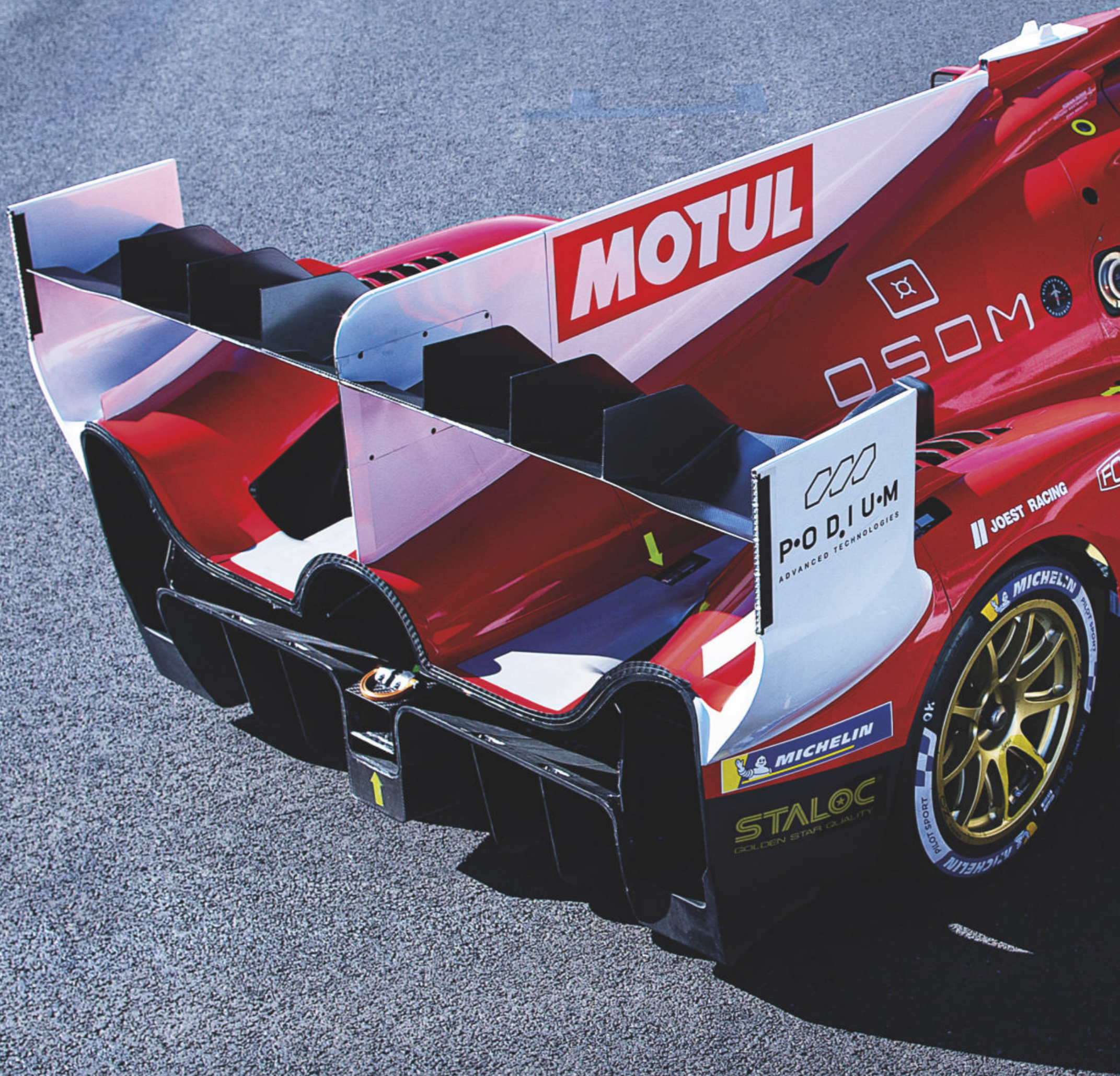
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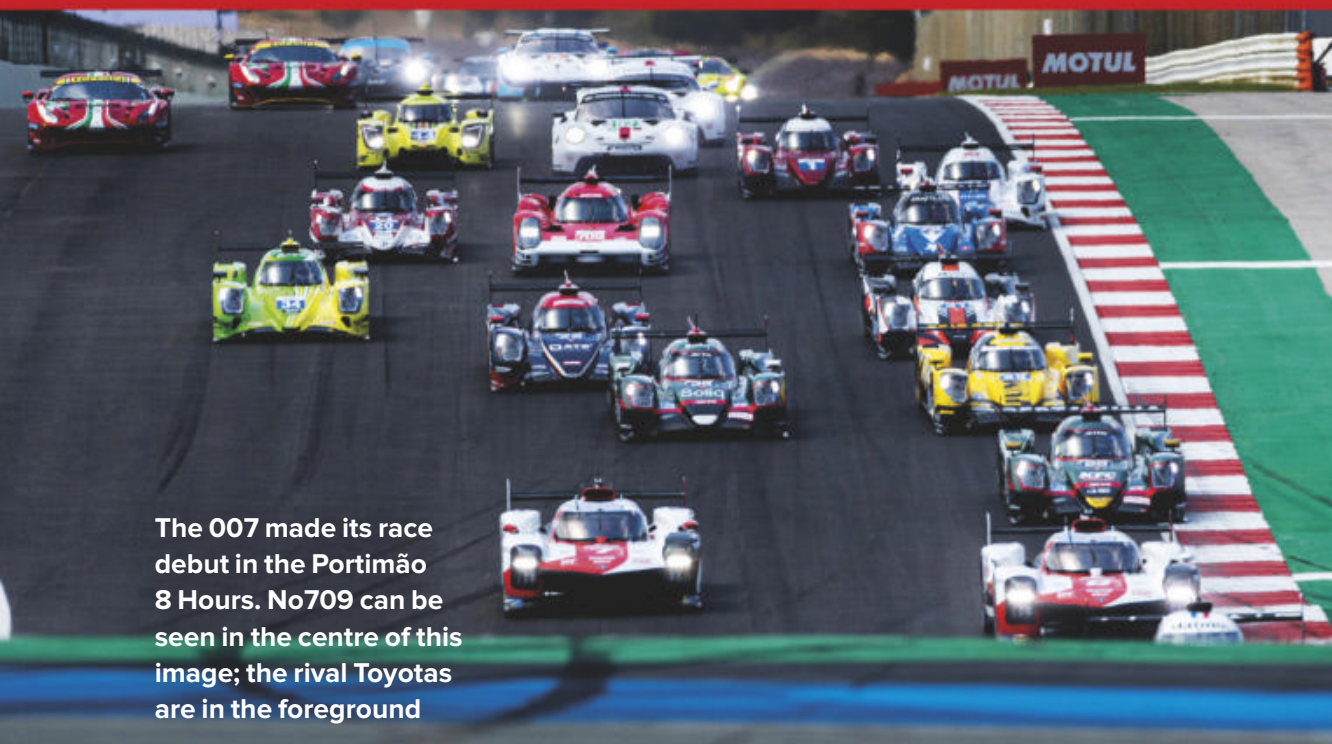


# Shock of the new

Are you looking at the next Le Mans winner? The owner of the Glickenhaus 007 believes so. **Gary Watkins** speaks with filmmaker and automotive entrepreneur Jim Glickenhaus about his plans to topple the big guys on the world's greatest stage

PHOTOGRAPHY: DREW GIBSON





The 007 made its race debut in the Portimão 8 Hours. No709 can be seen in the centre of this image; the rival Toyotas are in the foreground







The waiting is almost over for Jim. Two Glickenhaus 007s will compete at Le Mans in the Hypercar class

**J**IM GLICKENHAUS USED TO BE best known as a film director, producer and writer. *The Exterminator*, the 1980 cult vigilante movie, is probably his most famous flick. These days, however, he's more prominent as the vocal boss of a fledgling sports car company with a big social media profile only matched by its aspirations on the race track. He's heading to the Le Mans 24 Hours to take on the might of Toyota from this year, Peugeot perhaps as early as next season, and then Ferrari, Porsche and Audi from 2023. And he thinks he can win.

The New Yorker, who turned 71 in July, is a self-confessed car and racing nut with a collection of vehicles significant in size and historical importance. That was the starting point of his dream to race at Le Mans, one he will fulfil in August when his team pitches up at the centrepiece round of the World Endurance Championship with a pair of Le Mans Hypercars bearing his name and built with his money.

The road to the Glickenhaus-Pipo 007 LMH - to give the Le Mans racer designed and developed in Italy its full name - has by his own admission been long and winding. There was "never a conscious plan", insists Glickenhaus. Rather, his aspirations "grew organically".

But the seed of the idea to race at Le Mans was there almost from the moment he took the first step towards becoming a constructor.

He commissioned the Pininfarina styling house to build him what he describes as "a homage" to the 330 P3/4 chassis no0846, which

won the 1967 Daytona 24 Hours with Chris Amon and Lorenzo Bandini, that sits in his collection in Sleepy Hollow, New York. When his P4/5 by Pininfarina, based on the Ferrari Enzo supercar chassis and powertrain, was unveiled to the world at the Pebble Beach concours in 2006, the question was, what next? The obvious answer to Glickenhaus was to build a competition version. But where to race it?

"I called the Automobile Club de l'Ouest at Le Mans, and they said, 'But Jim, it's a one-off,'" recalls Glickenhaus. "'What class is it going to run in?' So then I went to the Nürburgring and spoke to Peter Geisheker."

Glickenhaus got a yes from the late promoter of the Nürburgring 24 Hours through his WIGE Media TV production company. But he wasn't aware of just how tentative that yes was at the time.

"Peter asked me what I planned to do, and I told him that I wanted to make a car that looked like my P4/5 by Pininfarina but was basically a GT2 Ferrari underneath," explains Glickenhaus. "He said, 'Great', but he later told me that he thought the chances of us showing up were zero."

Scuderia Cameron Glickenhaus, the name of the company he set up incorporating wife

**"When his P4/5 was unveiled in 2006, the question was, what next?"**

Meg's maiden name, did show up for the 'Ring enduro in 2011 with a car known as the SCG P3/4 Competizione. It was essentially a Ferrari F430 Stradale loaded with components from the GT2 race version and clothed in bodywork styled after the P4/5.

A hybrid version of the same car, now known as the P4/5 Modificata, followed the next year and the SCG 003C, the company's first ground-up design, in 2015 - two years before it took pole at the Nürburgring enduro.

Next came the 004C, a Glickenhaus rather than an SCG, that raced at the 'Ring for the first time in 2020 and will become the marque's first road car. Deliveries have been delayed as full type approval is sought, but the boss is aiming to sell "hundreds, if not a 1000".





## GLICKENHAUS 007

Graduation to the pinnacle of sports car racing and a shot at winning Le Mans overall was made possible by a seismic change in the WEC regulations. Out went the old LMP1 rulebook to be replaced by a new class for LMH prototypes. Not only were they framed to slash the budgets involved, but also to allow the new breed of machinery to look the part. The idea is that cars should look half prototype and half road-going super-sportscar. The new ruleset was manna from heaven for Glickenhaus.

"I wanted to make a sports car that reminded me of the cars that I remember

racing at Le Mans in the 1960s, a car that looked like my P3/4; LMH allows you to do that whereas LMP1 didn't," he says. "Those cars looked like jet fighters, and almost cost as much."

The price of entry was also important for Glickenhaus, explains Luca Ciancetti, founding partner of the Italy-based Podium Advanced Technologies organisation, which is responsible for the 007, as well as its 003C and 004C predecessors.

"These regulations, on paper at least, give someone like Jim the chance to compete with the big guys," he says. "In LMP1,

a privateer had no chance. The philosophy of the rules now is different."

History relates, however, that privateers tend not to win Le Mans. There's a happy coincidence that Glickenhaus has forged a relationship with Joest Racing to bolster his operation at the race tracks. The German team was the last true privateer to win at La Sarthe back in 1997. It also won the event as an independent in 1984 and '85.

But Glickenhaus Racing isn't a privateer in the mould of Joest when it seemed like a perpetual frontrunner at Le Mans before its successful tie-up with Audi ahead of the 1999

### FAMILIAR FIN

Rules on lateral stability are laid down in the LMH rulebook. The Glickenhaus retains the high dorsal fin that has defined the look of LM prototypes from 2011 and also incorporates strakes on the rear wing.

### SAFETY UPGRADE

LMH prototypes are taller than their LMP1 predecessors to accommodate a more upright seating position. This is part of a new set of criteria for cockpit safety that follows extensive research by the FIA on real-world accidents and virtual modelling.

### RESTRICTED AERO

The LMH rules allow for only one adjustable aerodynamic device in the name of cost reduction. Glickenhaus and Podium haven't told us yet what they can adjust and what they can't.

### TORQUE CONTROL

Torque sensors on the driveshafts allow the rule makers to measure and control the power delivery of each LMH car. A torque curve is laid down for each car ahead of every race.



season. Joest notched up its back-to-back wins in the 1980s with Porsche's 956 Group C design and its '97 victory as an indie came with the German marque's WSC-95 LMP prototype with which it had triumphed the previous year as a works-supported entry.

Buying someone else's car to go racing would be anathema to Jim Glickenhaus. A Ferrari nut he may be, but he never considered getting hold of one of its GT cars to fulfil his racing aspirations.

"No, because the Ferrari I knew and loved hasn't existed for a number of years," says Glickenhaus, who was honoured by the

# "I wanted to make a car that reminded me of Le Mans in the 1960s"

## SLEEK LINES

Glickenhaus forged a relationship with Sauber to fine-tune the shape of its LMH in its wind tunnel. It's the same tunnel in which the rule makers measure the aero performance of the cars and scan the body shape so it can enforce the rule that demands only one aero configuration.

## TWO TYRE OPTIONS

The LMH rules allow two tyre-size options to its participants. Glickenhaus, with its two-wheel-drive non-hybrid machine, has opted for 13.5in fronts and 15in rears, while the Toyota races on 14in tyres all round.

## SPEC TYRES

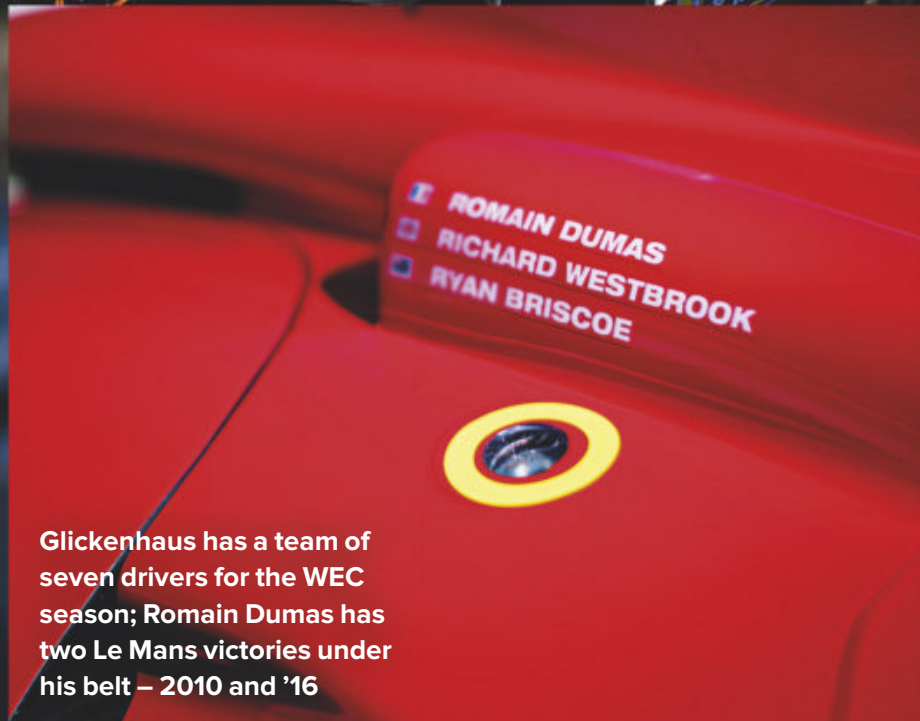
Michelin, which has won Le Mans outright ever year since 1998, provides the tyres for all the cars in the Hypercar class. Introducing a single supplier was part of the drive for cost reduction.

## PUTTING ON THE STYLE

The modest aero targets in LMH allow manufacturers to create cars that look like their road-doing cousins. Or in the eye of Jim Glickenhaus, one of the classics he remembers from the 1960s.








Glickenhaus has a team of seven drivers for the WEC season; Romain Dumas has two Le Mans victories under his belt – 2010 and '16







The 007 was devised with Le Mans in mind rather than the twists and turns of Portimão

Italian marque when it allowed his P4/5 to wear its badges. “Quite frankly I am becoming what Ferrari used to be: a small constructor who makes road cars and takes the profit from them to go racing.”

Nor was he tempted by the alternative and cheaper route into the WEC’s top class, which is simply yet confusingly known as Hypercar. The LMDh category announced in January 2020 allows manufacturers to develop a car around an off-the-shelf LMP2 chassis and compete in both the WEC and the North American series. Audi, Porsche, BMW and Honda’s Acura brand are already signed up for the category due to come on stream in 2023.

“Buying an ORECA or whatever and putting a body on it wouldn’t have been a Glickenhaus,” says Jim. “I find it unbelievable that Porsche is doing that. I wanted to build a car from the ground up because that’s what we do - we’re a constructor.”

Or a *garagista* of the type that once proliferated at Le Mans and form an essential and evocative part of the history of the great race. Think Jean Rondeau, the only man to win the 24 Hours with a car bearing his own name - the Rondeau M379 in 1980 - and the last independent constructor to win, Alain de Cadenet and many more.

Ciancetti has perhaps a better term for his paymaster. He likens him to the *mecenate*, the wealthy patrons of the arts in Italy during the Renaissance period. “Call me Jim ‘Medici’ Glickenhaus,” quips the man himself. He is a rich guy. He says the foundation of his

wealth was the success of *The Exterminator*: “I made a bit of money and invested half in Wall Street with the family firm [his late father, Seth, was a renowned investment manager] and used the other half to buy my Ford MkIV. I did something similar after every movie I made.”

Glickenhaus concedes that his exploits at Le Mans and beyond are probably going to make him a whole lot poorer. That’s what he told son Jesse, whose enthusiasm he credits for pushing him towards his dream.

“I told him, ‘But kid, you know you’re gonna end up with a whole lot less money when I die if we do this,’” says Glickenhaus. “Jesse said he didn’t care.”

Glickenhaus likes to do things a little differently. Joest Racing might have been an obvious signing when he decided that he needed to bolster his race organisation, but he has ploughed his own path on the choice of partners for the chassis and engine.

Bringing in a team that has a total of 15 Le Mans wins to its name (11 with Audi, four with Porsche) – and that’s not counting its 2003 victory with Bentley when its crew ran the


“I wanted to build a car from the ground up, because that’s what we do”

winning Speed 8 GTP – was a no-brainer, he says. The team was available after the end of its deal with Mazda in North America at the beginning of 2020. “It made sense; it was obvious,” he says.

But Glickenhaus has stayed loyal to Podium after forging a relationship in 2012 with the new company set up by a group of former PhD students from Turin University’s automotive engineering department. It was brought in for its hybrid expertise to work on the Modificata.

“They’re the brightest of young guys,” he says. “They understood hybrids, but they also understood racing and the road stuff. Podium was able to do everything for us.”

The 3.5-litre twin-turbo V8 that powers the 007 has been designed and developed by Pipo Moteurs. The French company, which was asked to bid for the programme by Ciancetti, has little experience in the world of



The car’s aerodynamic carbon-fibre composite profile was tested in Sauber’s wind tunnel



## GLICKENHAUS 007

endurance racing, though it was involved in the initial development on the engine in the first Bentley Continental GT3 racer that hit the track in 2013.

Pipo, based to the south of Lyon, does have extensive experience in the realm of off-road competition, though its successes came under the flags of Peugeot and Ford. Its engines helped Peugeot to a trio of World Rally Championship manufacturers' titles in the early 2000s and Ford to a pair in the middle of the same decade.

The V8 engine builds on the experience of Pipo's four-cylinder turbos produced for Peugeot, Ford and also Hyundai, explains general manager Frederic Barozier. The 3.5-litre capacity is no coincidence, he says. Take a couple of 1.6-litre WRC engines, increase the capacity a bit in order to reduce the turbo boost, and that's what you arrive at.

Glickenhaus describes the engine as "one tough bitch". It was wildly over-revved on the 007's debut at in the Portimão 8 Hours, round two of the 2021 WEC in June. The red line is under 10,000rpm – "though with a margin" says Barozier – but a clutch issue sent the revs soaring to 11,900.

That was late in the second hour, when Ryan Briscoe spun after contact with a GTE Am car and failed to engage the launch control as he got going. The clutch was rooted in the process, but after an hour-long stay in the pits for it to be changed, the solo 007 entered in Portugal returned to the track and ran to the finish for another five hours.

Glickenhaus and Ciancetti believe they already have a reliable race car. A successful 30-hour test at the Aragon circuit in Spain prior to the car's race debut convinced them of that. The task now ahead of the Le Mans 24 Hours on August 21/22 is to unlock the performance of the car over one lap and, perhaps most importantly, over multiple stints on the same set of Michelin tyres. Portimão was an important step on that road.

"Doing eight hours on this track isn't easy," said two-time Le Mans winner Romain Dumas, Glickenhaus' star signing over the winter, in the wake of the car's maiden appearance. "It was important to finish, and by getting back out there we learnt a lot."

Glickenhaus gave his car "seven or seven and a half out of 10" for its performance at the Algarve Circuit near Portimão in the hands of Dumas, Briscoe and Richard Westbrook. He was expecting more from the 007 at round three of the WEC at the Monza 6 Hours in mid-July when his team was scheduled to run two cars for the first time. Three-time Sebring 12 Hours winner Luis Felipe 'Pipo' Derani, Olivier Pla, Gustavo Menezes and Franck Mailleux were set to join the line-up.



It was a tough start at Portimão: after two hours the 007 was running sixth but a bump and clutch problems followed. The car finished 30th

Glickenhaus has seven drivers on its books and wanted to give each a race before making the final call on its Le Mans squad.

Glickenhaus is predicting more again when the 007 finally gets to stretch its legs on the 8.47-mile Circuit de la Sarthe. The car was conceived for the ultra-fast French track rather than the twists and turns of the Autódromo Internacional do Algarve.

He reckons he can give Toyota and Alpine – the only other contender in the Hypercar class for now with its old ORECA LMP1 design – a run for their money. At the very least.


"We're gonna try to win this year, and I think it's possible," says Glickenhaus. "We've

## "Glickenhaus reckons he can give Toyota and Alpine a run for their money"

built a low-downforce car on purpose with Le Mans in mind. We are absolutely as fast as Toyota on vmax [maximum speed]; the only time they were quicker than us at Portimão was when they were slipstreaming each other.

"We weren't disappointed by the lap-time differential. We know we are going to be better at Monza and better again at Le Mans. So why can't we beat Toyota?"

He says the same about Ferrari, which will arrive as a competitor in 2023 with a new LMH contender.

"Ferrari is trying to win overall at Le Mans for the first time since 1965," he says. "I might beat them to it. That's my plan." 







Victory at Le Mans? All eyes will be on Jim's pair of 3.5-litre V8-engined 007s in August





# Kicking up a storm

With Jim Glickenhaus taking on the major manufacturers this year, **Gary Watkins** looks back to 1980 when local-boy privateer Jean Rondeau upset the odds in a car bearing his own name



**T**HE STORY OF JEAN RONDEAU, the last *garagista* to win the Le Mans 24 Hours, is a tale of grit, determination and against-the-odds endeavour that propelled the Frenchman from near-obscurity to national fame in the space of a few short years. Like Jim Glickenhaus today, he was a driven man with a big ambition – to conquer the world’s greatest endurance race.

But this son of Le Mans, who first visited his home race as a small child, didn’t set out to win the French classic as a constructor, the feat that secured him a place in the record books as the only man to triumph in a car bearing his own name. He was consumed by winning as a driver. Building his own cars was simply a means to an end for Rondeau.

And a necessary one. Rondeau wasn’t going to acquire the kind of drive necessary

for him to win Le Mans based on his early exploits at the Circuit de la Sarthe. His debut in 1972 was undistinguished, save for getting hit on the helmet by a bird on the Mulsanne Straight in the open-top Chevron-Cosworth B21 in which he’d rented a seat. On his return to the big race over the following three years, he failed to qualify, finished a distant 19th and retired shortly after the halfway mark.

Rondeau was a driver of modest natural talents, and his career and his quest were, it seemed, going nowhere. The late Brian Kreisky, who brokered the deal for him to race the Chevron in 1972, remembered the Frenchman being “slow, very slow”.

There were a couple of seasons racing with some success in a one-make series for the Mini Innocenti backed by the French British Leyland importer, but his credentials weren’t going to propel him into a top seat at Le Mans. So Rondeau took matters into

his own hands. He became a team owner and constructor.

“It wasn’t his original plan to build his own car,” says four-time Le Mans winner Henri Pescarolo, who would make six of his 33 starts in the great race driving for Rondeau’s team. “The only reason he decided to build his own car was that he knew he was never going to land a drive in a car good enough to win the race.”

When Le Mans ’76 rolled around, Rondeau was on the grid in one of two new prototypes built for the new GTP class by his own organisation. Rondeau’s fledgling team had designed and developed the Cosworth-engined machine, but the car didn’t carry his moniker. The name on the nose was Inaltéra, a manufacturer of wallpaper run by racing enthusiast Charles James.

That March he had unveiled the car at a glitzy launch in Paris and revealed an

DPA





The Rondeau M379 was up against stiff competition in the wet from Joest's 908/80. Below: national heroes



Jean Rondeau had long dreamed of winning the world's greatest endurance race. His victory as driver and constructor is unique



impressive driver roster boasting some of the biggest names in sports car racing from his homeland. Pescarolo, F1 grand prix winner Jean-Pierre Beltoise and Jean-Pierre Jaussaud, who had driven his first Le Mans in 1966, had all been persuaded to be part of his new adventure.

"I had a very good offer from Porsche, but Jean was very persuasive," recalls Pescarolo. "He talked of an all-French

project, and he was also offering quite a lot of money for that time."


Rondeau was a persuasive, even charismatic man. Lucien Monte, a long-time engineer with the Rondeau operation, reckons his employees would have walked over hot coals for their boss: "He would ask a lot of everyone, but we all thought he was fantastic."

That loyalty, combined with Rondeau's drive, meant he was able to relaunch his company after two encouraging Le Mans campaigns that yielded a pair of GTP class victories and a fourth overall. James sold Inaltéra, its new owners didn't want to continue racing, and Rondeau had to start again from scratch.

From 1978, his cars were now Rondeaus. The team could and arguably should have won Le Mans in '79. His M379, another Cosworth-engined machine, was well-placed on Sunday

morning when team-mate Jacky Haran crashed out. The winning Kremer Porsche 935 K3 would go on to spend an hour parked at the side of the Mulsanne Straight undergoing ad hoc repairs in the closing stages...

A year later, Rondeau put things right. He and Jaussaud came out on top in a battle with the Joest Racing Porsche 908/80. The Rondeau had a starter motor glitch, which is why Jaussaud stayed on slicks through a series of showers over the closing stages. Jaussaud spun on the final lap, but was able to continue to score a famous victory.

The following week, Rondeau, Jaussaud and their Rondeau M379 were feted by president Valéry Giscard d'Estaing at the Élysée Palace. A driver nicknamed 'Bird Brain' after his avian contretemps eight years before was now a national hero who'd left his mark on Le Mans history. 





# La Rema

This year's Le Mans 24 Hours heralds the era of the Hypercar class, a spectacle that will be witnessed by 50,000 fans – if they can prove they are Covid-free.

**Gary Watkins** guides us through the new rules and the teams, and reveals why endurance racing is about to become so compelling





# issance



Gazoo dawn: the Toyota TS050 Hybrid of Sébastien Buemi, Kazuki Nakajima and Brendon Hartley en route to victory on Sunday morning in 2020

# I predict a classic

**Gary Watkins** looks forward to a new golden age for sports cars

On the face of it, we shouldn't be getting excited by the Le Mans 24 Hours. After all, we've only got five cars to duke it out in the top class. But that's to miss the point. This season is ground zero for a mouth-watering new era of sports car racing that many are predicting will be a classic.

There's every reason to believe it will be. Look who are coming to the World Endurance Championship in the near or slightly distant future. Peugeot arrives next year, to be followed by a cascade of names. Ferrari makes its long-awaited return to the pinnacle of endurance racing

as a factory in 2023, while Audi and Porsche will join the party at the same time. BMW and Honda's Acura brand are committed to building cars for this new age, though we can't be certain if and when we will see them in the WEC and at its centrepiece round at Le Mans.

Le Mans  
Hyperjourno  
Gary Watkins in  
familiar territory



## Toyota bids for four in a row

It seems like only a few short years ago that the Toyota curse would prevent it from ever winning the Le Mans 24 Hours. Think back to the last-gasp failure in 2016 or the bizarre sequence of events that led to Kamui Kobayashi rooting his clutch 12 months later. Now, it is bidding for a fourth straight victory in the French enduro.

Only the Bentley works, the Ferrari factory team and Joest Racing with Audi have managed four or more wins on the bounce. Toyota Gazoo Racing has every chance of emulating them at this year's rescheduled Le Mans on August 20/21.

It has been King of the Castle in the World Endurance Championship and at Le Mans since it was left as the last manufacturer standing in LMP1 at the end of the 2017 season. That remains the case at the start of a new era as it finds itself up against a niche manufacturer – and newcomer – in Glickenhaus and a low-key semi-works effort from Alpine.

Two wins from two starts in the opening rounds of the WEC at Spa and then the Algarve circuit in May and June respectively suggest that Toyota has an effective and reliable racing car in the new GR010 Hybrid. The odds are firmly in favour of Toyota continuing its winning streak at Le Mans. The question is not so much whether Toyota can win as if reigning WEC champions Kobayashi, Mike Conway and José María López can bury their bad luck and prevail over team-mates Sébastien Buemi, Brendon Hartley and Kazuki Nakajima.

## The return of a legend

Renault's Alpine brand has a special place in the history of Le Mans. It was a fixture on the grid with a line of small-capacity GT cars in the 1960s before returning with overall

victory in its sights in the mid-1970s with a Group 6 prototype that ultimately prevailed in 1978. Now the sports car marque is back chasing outright honours after an absence of more than 40 years.

Alpine's assault on the Hypercar class together with the Signature team follows eight years in LMP2, a period that yielded four class victories at Le Mans, a pair of WEC titles and two in the sister European Le Mans Series with ORECA chassis. They have stepped up with another ORECA design, the Gibson-powered machine that formerly raced as the Rebellion



Alpine gave an all-French triumph at Le Mans in 1978

R-13, taking advantage of rules that allow LMP1 machinery to race on for a season.

The Alpine-Gibson A480, as the car is now known, could well have won the opening two rounds of the WEC in the hands of Nicolas Lapierre, Matthieu Vaxivière and André Negrão but for a quirk of the rules.

P1 cars have been slowed to equate their performance with that of the new Le Mans Hypercars. The Balance of Performance rules are also meant to ensure that they can go the

same number of racing laps between refuelling stops, but the Alpine has been unable to achieve its target because the R-13 was hastily developed out of ORECA's LMP2 chassis at the end of 2017 and has restricted fuel capacity. Extra fuel stops have blunted the A480's challenge so far and are likely to do so again at Le Mans.

What we don't know yet is whether this is a one-shot opportunity for Alpine to repeat its '78 triumph with Didier Pironi and Jean-Pierre Jaussaud aboard an A442B. The A480 isn't due to be eligible next year, but Signature boss Philippe Sinault has made his aspirations to continue with an all-new Alpine, most likely an LMDh, in the future.

## Can an LMP2 win?

The answer to this one comes in two parts. On simple pace, one of the LMP2 hordes can't win. On reliability, it has to be possible for someone from the secondary prototype class to sneak through to take the overall win.

Toyota has been outspoken about just how close the P2 pack is to the new LMHs. It argues that measures designed to slow the secondary prototypes to maintain a separation between the top two classes haven't gone far enough. But when the WEC arrives in Le Mans, the LMH machines will be able to stretch their legs on the Mulsanne Straight and elsewhere, and the gap will grow.

The events of Le Mans 2017 show that a P2 can potentially win if the cars in the top class hit trouble. It nearly happened four years ago and that was at a time when there were three manufacturers battling it out in LMP1. United Autosports, Jota, G-Drive Racing and class newcomer WRT – a winner of the Spa and Nürburgring 24 Hours with Audi GT machinery – are probably the teams most likely to spring a surprise. 🟢

The marques that we know will be on the grid in its centenary year of 2023 have 47 outright victories in the French enduro between them or have won more than half the 88 editions held.

That's the good news; the bad news is that the makers will be racing at Le Mans and WEC under two sets of rules. The Le Mans Hypercars developed by Toyota, Peugeot, Ferrari and the boutique marque Glickenhaus will be up against the LMDh machinery developed out of an

off-the-shelf LMP2 design by Porsche and Audi. They will come together in the confusingly named Hypercar class.

It would be pointless to say that it would be better if there was just one rulebook. Of course it would, but the way the regulations evolved after it became clear that LMP1 was out on its feet midway through 2017 didn't allow for that.

The Balance of Performance became a component part of the new era early in that process and

its role in balancing different types of machinery was reinforced when LMDh was announced in 2020 to at least partially unite the WEC with the IMSA SportsCar Championship in North America. Many like to preface the term BoP with the words 'the dreaded'. The reality is that it is a necessary evil.

Balancing cars from two divergent rulesets is going to have its pitfalls, more so because within the Hypercar class there will be four-wheel-drive LMH

hybrids, non-hybrid LMHs and LMDh machinery with rear-axle energy hybrid systems. Dodging them is the challenge for men in blazers over the years to come.

The hope is that the clever way the rules have been written and the experience of the automatic BoP devoid of human subjectivities employed since 2016 in the GTE Pro class can work its magic. When people are no longer talking about BoP, it will have done its job. Then we'll know a golden age is upon us.



The two Corvette C8.Rs of Corvette Racing will make up a quarter of the LMGTE Pro field at Le Mans



## All-female teams

Two all-female driver crews again form part of the 62-car Le Mans entry. The Signatech-run Richard Mille Racing LMP2 squad, *inset below*, is back, this time as part of a full WEC campaign, while the Italian Iron Lynx squad fields the 'Iron Dames' in a GTE Am Ferrari for a second year. It is the first time that there have been two such line-ups in the race in consecutive seasons since before World War II. These programmes, backed by the FIA's Women in Motorsport initiative, are aiming to redress that lack of female participation in endurance racing by showing that it is a viable career route.



## Chevrolet returns

Chevrolet will be back on the grid after a Covid-enforced hiatus last year brought its run of Le Mans starts stretching back to 2000 to an end. The new mid-engined Corvette C8.R GTE Pro contender that was supposed to grace the Circuit de la Sarthe for the first time last year will make its

belated debut in the big race this time around. The car wasn't competitive on a one-off outing in the WEC at Spa in May, but that appearance was all about allowing the rule makers to take a close look at the car and gather in the data for the all-important Balance of Performance.

There are two new faces in the Corvette Racing line-up this year, and they're both Brits. Nick Tandy, overall winner with Porsche in 2015, has joined the team's full-season line-up, while Mahindra Formula E racer Alexander Sims has come in for the long races, Le Mans included, alongside American Tommy Milner.

Corvette Racing lines up in a class that is now a rump of its former self. Aston Martin followed Ford and BMW out of GTE Pro over the winter, leaving just Porsche and Ferrari as full-season combatants in the WEC.

The factories are joined, however, by two privateers running the second generation of Porsche's mid-engined 911 RSR. WeatherTech Racing takes time out from its IMSA SportsCar Championship campaign in conjunction with



Proton Competition to race at Le Mans, while the Taiwanese HubAuto Corsa squad makes its second appearance. Its roster includes GP winner and Super GT regular Heikki Kovalainen.

## The fans are back!

An ingredient essential to the magic of Le Mans was missing in 2020 - the fans. The good news is that spectators are back for 2021, though





## Know your Hypercar!

The dawn of a new era doesn't come without a strict set of rules. Here are the main points in a nutshell

Designers get a set of rules, they put their brains together, employ all the technology they have at their disposal, and try to come up with the most competitive machine possible. That's the traditional mechanism behind the conception and development of the racing car. The Le Mans Hypercar (LMH) division has turned that process on its head.

The LMH rules that came into force for the 2021 World Endurance Championship don't so much set constraints and geometric restrictions on the design of the car, rather they lay down the outcome of the design process. No longer are the boffins back at base looking for that last loophole to gain the unfair advantage.

At the heart of the regulations are so-called performance windows, most significantly for the aerodynamics and drivetrain, into which the cars must fit. For the aero, maximums and minimums are laid down for both downforce and drag.

The aero targets set by the rule makers, the FIA and the Automobile Club de l'Ouest, were by design relatively modest. The

reasoning is threefold: to slow the cars racing in the top of class of the WEC; to open up the division to more players by reducing costs; and to ensure that the shape of the car isn't determined exclusively in the wind tunnel.

'Hypercar' was the buzz word in the air when the FIA and the ACO started working on a successor to the LMP1 division in early 2018. It reflected a desire to create cars that had more than a hint of road-going supersports cars about them. The rules have been



framed to allow a manufacturer to imbue its LMH with styling cues from its range of street vehicles.

Not only is a maximum power figure laid down for the complete powertrain — both front-axle hybrids and non-hybrids are allowed — but the torque curve through the rev range is prescribed. This is

made possible by torque meters that measure the power output in real time.

On top of the rule book is laid a system of Balance of Performance, which does what it says on the tin. It balances the different cars in class. The tools available to the rule makers are adjustments to the torque curve, the minimum weight and the amount of energy permitted to a car between pitstops.

A hybrid system is no longer the performance tool that it was in LMP1, a result of the controls on power. The hybrid punch can no longer be employed to zip past slower cars. Nor does it offer a significant traction advantage out of the corners, because the energy-retrieval system cannot be deployed under 75mph.


Advantages of running a four-wheel-drive car in terms of tyre degradation have also been offset in the rules. An LMH can either run 14in tyres front and rear or 13.5in at the front and 15in at the rear. The second option is aimed at two-wheel-drive machinery such as the Glickenhaus that puts all its power down on track through the back axle.

not the heaving mass of a quarter a million or more who attend the race in a normal year.

The plan is to allow 50,000 spectators, all of whom will have to present the French government's new *pass sanitaire* to gain access to the circuit. That means that they will have had to have been fully vaccinated, received a negative PCR test in the previous 72 hours or have caught Covid in the previous six months.

The fans will be free to roam the spectator areas from Maison Blanche up to Tertre Rouge. But whether the Mulsanne Corner and Indianapolis/Arnage viewing areas will be open is yet to be confirmed.

### And so to Test Day...

The traditional Test Day was another victim of Covid in 2020. It's back this year, though rather than taking place two weeks before the main event, it will go ahead on the Sunday prior to race week. Practice and qualifying begin on Wednesday with the new-for-2020 Hyperpole qualifying session for the fastest six cars in each class on Thursday. 







# UNDER NEW MANAGEMENT

Having started his career in Ferrari's financial department, Stefano Domenicali has gone on to be a world championship-winning team boss, a spy hunter, a scapegoat, a supercar supremo and now takes on perhaps the toughest challenge of all – leading Formula 1 into a new generation.

**Adam Cooper** meets the F1 CEO to talk about his route to the top

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**A**T THE START OF THIS YEAR Stefano Domenicali joined the Formula 1 organisation as its new CEO, and is only its third ever top man after Bernie Ecclestone and Chase Carey.

The Italian brings with him an impressive CV and depth of experience gained in racing and the wider motor industry, and along the way he's soaked up knowledge and sharpened his leadership skills.

What hasn't changed is the upbeat personality that helped to ensure that he was a universally popular choice as successor to the efficient but dour Carey. Domenicali is a glass-half-full guy; his default setting a welcoming smile. The 56-year-old possesses a ready charm that came in very useful when as Ferrari team manager he had to resolve the latest controversy with the stewards.

At heart he remains a racing fan, one of the few senior people in the F1 world who has actually paid to watch races from trackside. So how safe is the future of the sport in his hands?

"When you're a guy born in Imola, you were raised up with the perfume, the smell of the oil, of the fuel, and the engine sound of the bikes and the cars," he recalls. "When I was a kid I already was in love with motor sport in general. I was attending races with the general admission at the Tosa corner with my friends, staying there all night long.

"Then when I was at college, I was helping the organisation during the racing weekends. I was actually parking the trucks, I was checking the passes inside the paddock. That's where I met for the first time the mechanics, Mr Ecclestone and all these people."

Determined to find himself a job in racing Domenicali - the son of a banker - opted to study business rather than a technical subject.

"It's curious enough that neither from the driving perspective, nor the engineering perspective, was I attracted by motor sport. It was really the passion for the sporting challenge. And the organisation, the level of activity that you have to co-ordinate, is impressive. So I was always fascinated by that."

Naturally his ambition was to work in racing, and having graduated from Bologna University and fired off his CV to companies all over Italy's 'motor valley' he was accepted at Maranello in 1991.

"Early on I was working in the area I had graduated in, which was in business control, administration and fiscal, so it was something that you could do in any company in the world. Of course, the fact that it was Ferrari meant a lot. And then I had the privilege of being connected to motor sport because of Mugello."

Working on the fringes of the F1 team Domenicali identified Ferrari's ownership of Mugello as a way to broaden his sporting horizons. In the early 1990s he became deeply involved in the organisation of events.

"I took the licence of being race director, steward, clerk of the course. Basically I was doing my normal business during the days of the week, and then I was going to the race track. During the period I was also responsible for the shareholding structure of Mugello on behalf of Ferrari."

What he really wanted to do was work on the front line of the racing team. After spells in human resources and sponsorship the chance came at the end of 1996, early in the Michael Schumacher era. He landed the role of team manager, later taking the title of sporting director. In effect he was Jean Todt's right-hand man, overseeing operations at the track and serving as the link to the FIA.

"Step by step I was there. I don't want to exaggerate, but it was really like a dream come true. And it was real."

Working alongside Schumacher, Todt, Ross Brawn and Rory Byrne, Domenicali was a key member of the 'dream team' that, after a few heartaches, was destined to go on to dominate the early 2000s.

## "I personally got the Spygate email from the copy shop guy"

"I would say the beauty of that period was we had a very, very well integrated group of people that were in different competencies, and shared a lot of respect. It was an incredible organisation, and this period was really fantastic. Every one of us was having a role that was important in this path. That was really very, very crucial."

Domenicali learned a lot working under Todt: "He is a leader that can motivate, he is always putting you under pressure. But he's also giving a lot to the people he trusts and who are loyal to him, and he is very solid. He never stops working."

"This is something that I tried to do the same also on my side when I grew up in different roles. I have to say that was very important in my career."

In 2007 Todt was promoted, leaving Domenicali as *de facto* team boss. It was to be a memorable season on and off track, with Kimi Räikkönen stealing the title from Lewis Hamilton and Fernando Alonso at the last round in Brazil. And it was all played out

against the background of the infamous McLaren 'Spygate' scandal.

"We had from the sporting point of view an incredible end of the season, because if you think that with two races to go we were behind by 17 points. And we won with Kimi after an incredible race that I remember every single moment of. On the other hand, we do not have to forget that season was very crucial with regard to the spy story."

The affair erupted when it became known that McLaren man Mike Coughlan had received Ferrari documents leaked by long-time Ferrari chief mechanic Nigel Stepney. It only came to light when a switched-on employee of a Woking-based photocopying business became suspicious.

"I was the one personally who received the email from the guy from the copy shop, because he was a Ferrari superfan. He emailed to me something that for him was strange to copy. It was an email with an unknown name for me. I was ready to delete it, and by chance I opened it and I saw a drawing of our car."

"It was a very difficult story, because it was something that we were not expecting. Without talking about the other side, someone of our team, a team that was pretty unique, did what he did. So we were shocked."

In 2008 Domenicali formally took over the team principal role, the first change at the top at Ferrari since 1993. It was to be another dramatic season that featured Felipe Massa missing the title by the slenderest of margins at the Interlagos finale.

"It was a year where we had the Singapore Crashgate [starring Renault], a year where we lost races we had already won... I remember Hungary - Felipe was leading easily, and then we had a failure on the engine."

"Then that last race, I would say from a TV perspective, that was a race that people will forever remember - for Felipe to be a world champion for 20 seconds or something like that, then Lewis winning his first title. It was an incredible season."

The constructors' title at least provided some compensation from the year, but there was more frustration to come for Ferrari. In both 2010 and 2012 Fernando Alonso narrowly lost out to Red Bull's Sebastian Vettel, in the first year thanks to a strategic clanger at the Abu Dhabi finale. ●





Clockwise, from top: alongside Ross Brawn at Ferrari in 1999. The pair now form the backbone of Formula One Management; celebrating a win at Valencia with Fernando Alonso in 2012; in conference with Bernie Ecclestone – Domenicali is only the third man to run the sport; fresh-faced during his early Ferrari days





“Technology is relevant, but fans  
come to see drivers fighting”

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“These are memories that will never get out of my mind. But it’s part of the history of racing, it’s part of the emotion of racing. It is very frustrating when you lose a championship for one or two points, but it gives you an incredible spirit to never give up. And in any case, we were there as a group. And when you are there to fight, it’s something unique.”

By the start of the hybrid era Ferrari had not won a drivers’ title in six seasons, and those three near misses were to prove costly for Domenicali. Pressure from Fiat boss Sergio Marchionne was building.

When the team’s new V6 power unit proved to be hopelessly uncompetitive Luca di Montezemolo had to find a scapegoat. Domenicali departed early in 2014 – it was heartbreaking for a man so steeped in Ferrari.

“It was a very difficult moment, sure. But I felt in that moment, for many reasons, it was right for me to say, ‘Listen guys, I take the responsibility, I withdraw myself.’ And, you know, for a guy like me that had the heart of Ferrari for 23 years, it was really difficult.

“I thought, and I’m still thinking, that I did the right thing. There were so many things going on that it was better to keep it like that. And I do believe that despite the situation, as always in life, there is a door that is closing, there is a bigger door that will open later, let me put it this way.”

Domenicali took little comfort from the fact that his hapless replacement Marco Mattiacci – a road car marketing man – proved to be out of his depth.

Todt, by now president of the FIA, offered him a role as the head of the Single-Seater Commission, tasked with consolidating the jumbled career ladder to the top. It provided Domenicali with more useful experience, and furthered his inside knowledge of the governing body.

However that was just a part-time job that he fitted around a new challenge with Audi, which he commenced in October 2014.

“I needed to have a break of a couple of months because really the pressure was very, very high, as you can imagine, in Italy with Ferrari and so on. I was open for any kind of opportunity, and I have to be thankful to Audi Group, and to [CEO] Rupert Stadler. He was the first to call me personally, directly, the day after my resignation. I received other offers, but after six months I said, ‘Okay, I will come.’”

Named vice-president of new business initiatives, his main job was to conduct a feasibility study for an Audi entry into F1. Alas the timing was wrong: “During that period if you remember ‘Dieselgate’ came out, and all the things that were not really core business didn’t have the chance to move on.”

EARLY IN 2016 DOMENICALI moved sideways to become CEO of Lamborghini. Once again he widened his knowledge, and usefully for his current F1 job some of the most important lessons came in the world of social media.

“We needed to change the brand perception. And the young generation talk or communicate through a different way and using different tools. So I learned a lot how to maximise that.”

Domenicali looked well set at Lamborghini when the chance to lead the F1 organisation emerged: “I was not expecting it, and I have to be thankful to Chase Carey and to [Liberty Media CEO] Greg Maffei, because they asked me to have a meeting to discuss F1, as a very generic point, just to have a few words.

“And then eventually, it was last year in the week of Monza, that basically they said to me, ‘We would like to discuss with you the future.’ And my mindset was not ready for that, I was not expecting that.

“There was, I would say, a positive shock moment where I needed to share that with my family, because there had been a period where I found the right balance with my kids and with my wife. And of course with this job we had to move to London.”

So why leave Lamborghini and Italy to take up the F1 role? “The appeal is very simple. In life, there are things that are apart from the business perspective. I was born in the racing context, and when we are talking about F1, for me F1 has been from the emotional side something unique and incredible.

“If you think about F1, in that role there were only two people that managed it. There was Bernie, who created it, and then Chase that was able to take F1 at that moment in a different situation. And then to be there, and to believe that I can do that, to cover that position, there are not so many chances. So I took it, as an incredible responsibility but an incredible opportunity to try to do what I feel is right for this sport, for this business. Because that’s the way that I’m always doing things when I’m doing something. I want to dedicate myself 100% to make sure that we maximise what we are having.”

Carey had completely rebuilt the F1 organisation, signed the new Concorde Agreement, helped the FIA to push the budget cap through, and steered the sport through the first year of Covid. Working alongside his former Ferrari colleague Ross Brawn, Domenicali’s task is to take the sport to the next level, bring in more fans, find new venues.

“We have so many big challenges for the future, to make sure that the sport will involve

more and more people, and will be sustainable for the business and for the teams.

“We need to make sure that our avid fans will stay, but also that new partners and new fans can be attracted. I would say the major thing is to grow the popularity of F1. By doing that, the other things will be the tools, how to activate and the connectivity that will grow with fans around the world.”

Liberty boss Maffei made it clear recently that one of Domenicali’s key tasks is to attract new manufacturers to F1, and specifically his old pals at VW/Audi. The first step is to finalise the new power unit rules for 2025.

“I think what is important is to create the conditions to be attractive for any possible newcomers. We are solid now with the actual OEMs that really invested in our sport.

“But we cannot be complacent on who we are in the future. We need to create the right conditions for any others, that could even be an independent, that can be part of the business. It will give us once again tools of credibility for the future.”

And what about new teams? Domenicali stresses that the main priority is to keep the existing competitors alive.

“I can tell you that after the introduction of the budget cap we are receiving a lot of requests, but I do believe that it’s important to keep the value of the actual franchises or teams, because that really can make the difference in terms of their sustainability. I would prefer to keep a better sustainability with the teams that are actually here.”

The calendar remains a major issue, and expanding it will not be easy in a Covid world. The Vietnam project has collapsed, but Saudi Arabia joins this year, and after several false starts, a Miami GP is finally on the horizon.

“I would think we’ve never had so many requests from around the world. It’s a matter of balancing new strategic positions in terms of where we are going into the future.

“I don’t think that we can grow more than the number of races we have today. But you will see in the next couple of years we’re going to add some other venues. We need to balance the presence in Europe, because we need to be a true World Championship.”

The good news for fans is that the classic European venues are safe. Domenicali has never forgotten his roots, cheering on the likes of Gilles Villeneuve alongside the rest of the *tifosi* at Imola. “Technology is absolutely relevant. But we don’t have to forget that people are coming here to see drivers fighting, and to create this kind of emotion around that. And together with the FIA, we need to keep that at the centre of our agenda. We don’t have to forget who we are, and what we’re doing.”



Aerodynamicist Frank Costin, older brother of Cosworth co-founder Mike, was given the task of levelling out the famous Lister Knobbles





A blue and white Lister Costin BHL135 sports car is shown from a low angle, driving on a wet racetrack. The car is blue with white racing stripes and the number '38' on its side. The background is a blurred green field and a line of trees, suggesting high speed. The track surface is dark and reflective from rain.

# *Smooth* operator

Chassis BHL135 was the 14th and final Lister Costin and ultimately marked the end of the line for the Cambridge company. **Andrew Frankel** takes to the wet of Goodwood to test this 1959 'animal' — a car that is now in need of a new owner

PHOTOGRAPHY: JAYSON FONG





The works Lister Costin driven by Ivor Bueb and Bruce Halford lasted nine hours at Le Mans in 1959

THERE IS A HOARY OLD TALE, almost certainly apocryphal, of a party being held with Brian Lister as its guest of honour. And the organisers naturally arranged for as many Listers as possible to attend. When the time came for speeches, Brian stood up and said something like, “I am so happy to see that of the x number of cars we built, y have honoured me with their attendance today.” The point being that ‘y’ was a considerably larger number than ‘x’.

It is a sad sign of the times that pretty much the first question that anyone asks in connection with those wonderful and usually Jaguar- or Chevrolet-powered sports cars of the 1950s is ‘Is it a real one?’ It is an important question, because so many are not. So let’s clear that up straight away: this is a real one. Not only that, it is the very last Lister to have been built and delivered before Brian Lister shut the shop for good in August 1959.

All that remained was the one-off spaceframe car that had taken so much effort and money and remained in bits at the time. It was sold off and eventually completed, and while it saw little success racing in the early 1960s, as an historic racer it has become a staple (and now winner) of the Goodwood TT. It is a car I used to race and is very close to my heart.

But it is also another story for another time. This Lister is chassis BHL135 (standing for Brian Horace Lister), which, according to Doug Nye’s renowned 1980 book *Powered by Jaguar*, is the

14th and final production Costin-bodied Lister built in 1959, following the 17 production ‘Knobbly’ Listers produced during 1958. There is no BHL136.

Little of its early history is known but it appears to have been shipped to the US when new, with engine mounts suitably modified to accept Maserati’s thunderous 4.5-litre V8 engine used in the contemporaneous 450S. Subsequent modifications to the bonnet suggest someone then decided to take a more orthodox and pragmatic, if somewhat less courageous, approach and fit it with a small-block Chevy V8, which actually powered more Costin Listers than Jaguar straight sixes did. Whether the Maserati engine was ever fitted is not known.

It seems very possible that the car was never raced in the US, not least because if it had been, it is likely that some evidence of the fact would have come to light over the last 60-plus years. Such evidence that does exist points in an entirely different direction. For it seems the bonnet was modified again with its front wheel arches cut away, perhaps meaning that the owner wanted to use the car on the road and needed to address the issue of its absolutely atrocious steering lock.

But the most compelling evidence provided by that bonnet that indicated the car went unraced is provided by its very existence. Bell Sport & Classic, which is selling the car and brought it to Goodwood for me to try, says, “This is probably the only Costin [Lister] to retain its original bonnet,” from which it is

reasonable to infer its survival was down to it having led a very quiet life, well away from the rough and tumble of racing.

Which would also explain why this is such an original Lister, documentation from CKL Developments verifying the originality not only of that bonnet (which is not on the car but will be sold with it), but more importantly its chassis, which is stamped where you’d expect and in the original Lister font.

Perhaps most telling however is the welding, which has its own unique signature style, namely that of Bob Gawthrop who did all the welding on the original production Listers. The doors and sills are original too, as is much of the suspension.

It was brought back from the US in 1987 where it was restored to former glory by John and Gary Pearson, and fitted with Jaguar power which it retains to this day. Prepared by Pearsons and raced ever since, it has a claim to being the fastest Lister of them all, most recently winning the Sussex Trophy at the 2019 Goodwood Revival and again at Portimão later that year where Chris Ward lapped a second faster than he’d managed in any other Lister.

But how did the Costin even come about in 1959? It seems through a certain insecurity on behalf of Brian Lister. Not content with creating a *garagista* British sports car every bit as quick in the right hands (usually those of Archie Scott Brown) as the factory works cars of Aston Martin and Jaguar, he felt the chassis and aero could have been done better if realised by an expert eye. ●





“It was a bridge to a spaceframe future  
for the company that never turned up”





This was in part to offset the inconvenient fact that there wasn't much he could do about the power source, which was always going to come from proprietary suppliers, overwhelmingly Jaguar and Chevrolet. But he was mindful too of the fact that work had started on the chassis at the end of 1953 and that by the end of the decade the world, bluntly, had moved on.

What he envisaged was a spaceframe car, lighter by far yet structurally stiffer than the rather two-dimensional meat and potatoes design of chunky cross-braced longitudinal tubes he'd worked with ever since. So he asked Frank Costin to take on the job. Costin had impressed Lister not just with his work on Vanwalls, which would help the young Formula 1 team to take the inaugural

constructors' trophy in 1958, but also his earlier work sculpting the fabulous shapes of the Lotus 11 and 16. During the war Costin had also worked for de Havilland on projects like the Mosquito fighter-bomber.

Brian was acutely aware that he'd done the Knobbly by eye and without training, so bringing someone of Costin's repute to tackle the new project would have seemed eminently sensible at the time. Whether it actually turned out that way is another matter altogether.


What in fact happened was that the spaceframe car soon turned into a design and development nightmare, not to mention something of a money pit. With no chance of it being ready for the 1959 season, Costin was invited to adapt at least his aerodynamic

thinking to the Knobbly chassis to create what was effectively a stop-gap car, a bridge to a spaceframe future for the company that, in the event, never turned up.

The direction Costin took was to make the car as slippery as possible, which is why the body is so long, smooth and encompassing. It also had a tonneau that was meant to be inflated by the airflow at speed, smoothing further the top surface of the car in theory, but in reality rather better at depriving its driver of all cooling air.

When done the Costin Lister probably did have lower drag, but only at the price of increased frontal area and I've never seen any statistical evidence to show that, overall in a like-for-like comparison, it was actually any quicker than the car it was designed to





Buy this Costin and you  
will be getting two  
bonnets, one of which  
is the original

replace. Certainly Brian Lister was no fan, quoted in Paul Skilleter's *Lister-Jaguar* book as saying: "Frank, not to put too unkind a comment on it, effed it up. It was bloody terrible to be honest with you." Which, even given its undoubted design flaws, still seems a trifle harsh.

But then it is perhaps instructive to look briefly into the likely mindset of the man at the time of the Costin's creation. Still grieving from the terrible loss of his friend and protégé Scott Brown at the wheel of one of his cars at Spa in 1958, Brian Lister had already lost his passion for racing. Contributing to this was the fact that new rules meant his cars had to run 3-litre Jaguar engines in international competition, which had a monotonous habit of unstitching

## "The direction taken was to make the car as slippery as possible"

themselves in the heat of battle. In addition, as it was becoming clear that the spaceframe car wasn't going to turn up in time, the entire philosophy of racing powerful, relatively heavy cars was thrown into question at the 1959 British Grand Prix support race where his cars came in fourth, fifth and sixth, behind two tiny lightweight Lotus 15s and, ominously, amid-engined Cooper Monaco.

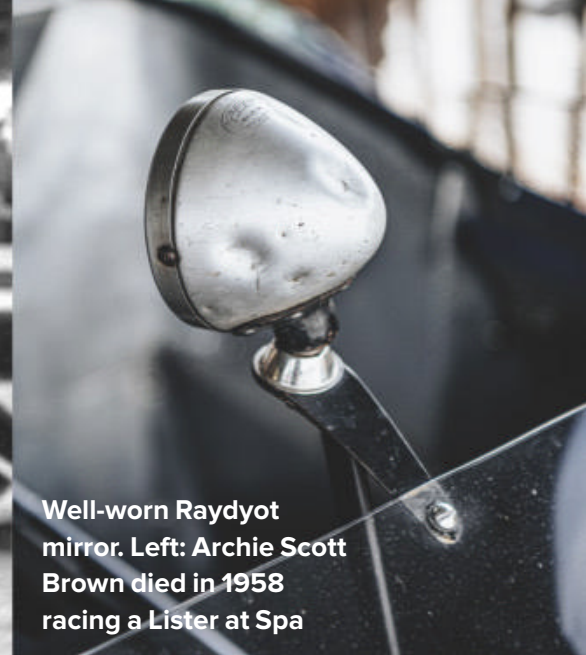
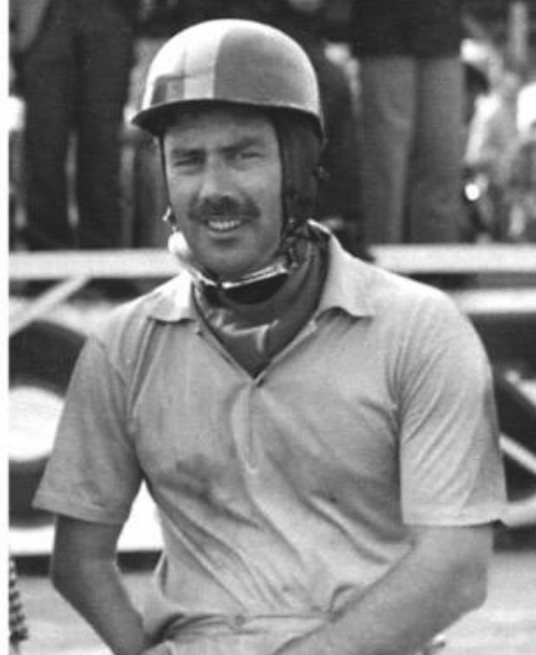
Too much was being spent for increasingly little reward. No wonder that

his view of the Costin was jaundiced. It culminated in an announcement on July 23, 1959 that Lister was withdrawing from racing, the last event likely to be the Goodwood TT on September 5. But then came a series of hammer blows: first Ivor Bueb, who'd been hired to replace Archie, was critically injured hillclimbing a Cooper on July 26. Then Jean Behra was killed in a Porsche at AVUS on August 1. Later that same day Brian learned that





The car may once have been fitted with a Chevrolet V8 but now runs with a Jaguar 3.8-litre race engine



Well-worn Raydyot mirror. Left: Archie Scott Brown died in 1958 racing a Lister at Spa



Brian Lister with Scott Brown in 1954; MVE 303 was the first Lister-Bristol



Jim Clark was impressed by the Costin, once saying, "The handling of this car was fabulous"



Ivor had succumbed to his injuries. Sickened to the core, he shut the race team down with immediate effect. The Costin Listers never did make it to Goodwood.

But there's probably no better place to drive one today. Goodwood was always a happy hunting ground for Archie and Listers and both were an unmissable staple of racing there when the circuit was in its original pomp. They have been again ever since the first Revival meeting brought it back to life in 1998. Fast and flowing, it is ideal Lister turf.

Or at least it would be were it dry, which it most emphatically is not. We were attending a track day for supercar owners, most of whom quite sensibly elected to leave their precious steeds under their awnings, one of whom was even kind enough to question my sanity in choosing to drive such a beast in those conditions.

And a beast it undoubtedly is: I don't know how much power this particular wide angle, 3.8-litre Jaguar is producing on its triple Weber DCO3 carburettors, but it will be between 350bhp and 400bhp, and considerably more than it had in period.

You step in over that little flip-down door and settle yourself what seems impossibly low in the car, even though Costins were criticised for having needless amounts of ground clearance. I expect modern race prep has reduced that over time. Certainly getting the driver as low in the car as possible was key to Brian's original chassis design, if not Frank's aerodynamic theory.

I love the dash because it almost doesn't have one. It's a plain sheet of aluminium with holes cut for a rev-counter, ammeter, water temperature and oil pressure gauges. Add a dash light, a key switch and some buttons, and you're done.


The boys from Bell Sport & Classic have already warmed it through for me and been kind enough to warn me about its fairly merciless race clutch, which I am about to discover is a problem compounded by a very high first gear.

The engine blasts into life. It's been considerably silenced to sneak under Goodwood's 'noisy day' regulations but it still sounds like it would be delighted to bite a chunk out of your throat.

Sitting at the end of the pitlane waiting for the light to go green, I realise two things. First, like many a race motor tuned as far as it's sensible to go, it does not care to idle. I have to sit there like an idiot making a racket at 2500rpm just to keep its plugs clean.

Second, I have no idea what set up the car is wearing, though given its now quite distant but still most recent activities, it's a fair bet it's full dry. I remember well how you could set the spaceframe coupé up beautifully for wet or dry conditions, but it was completely intolerant of being on the wrong settings so if it rained halfway through the race you were, in effect, stuffed. I can only hope this car with its more agricultural chassis is a little less sensitive.

I'm watching the rain plink off the Perspex screen when red turns to green and I am jerked from my reverie. A few more revs, drop the clutch, feel a bit of a goon for so much wheelspin (but it's better than stalling) and I head out.

Almost always you know whether today is going to be a riot or really hard work before you're out of the first corner. And this was no different. You don't need to be at maximum attack from the end of the blend line, just turn in gently to Madgwick, pick up the throttle and start squeezing. If it slides you're in business, if it skids you've got trouble. The Lister slides. Beautifully. 

"I love the dash because it almost doesn't have one"



Since its return from the US in 1987, the car has raced throughout Europe





“Getting the driver low was key to  
Brian’s original chassis design”





In 2019 at Portimão this Costin was driven by historic racer Chris Ward and went a full second quicker per lap than any Lister he'd raced before. Alas for our driver, the conditions were not fit for record-breaking







WIN



Above: the Cleaning Ladies take a well-earned tea break at Goodwood. Left: some seriously rare racing machinery line up in 2019, including the Bentley Pacey-Hassan Special (2) and Parnell MG K3 (17)

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Track conditions are probably at their second-easiest: properly wet so it's completely consistent, but not so wet that those horrid rivulets of water are running across the track. So how much power can you use? It only has four gears and the first two have no chance of transferring the torque to the road. But if you're gentle in third it picks up well enough. Traction is still limited, probably because it's far too stiffly sprung for this weather, but it doesn't skip or hunt about as you try to find how hard you can press and once the tyres bite, you're away.

Hooked up, this Lister is a pure animal. The engine is tractable enough but if you want to make the most from its top-end-heavy powerband and gear ratios, you need to use all 6500rpm, at which point in third gear the car is ripping the scenery towards you. Pull back that beautifully mechanical lever into top and the show scarcely abates. The car may be 62 years old, but it feels ready for anything.

And yet it's not scary. I'd love to tell you about my heroics taming this feral creature, but if you've driven a bit you get to a stage when the only thing that frightens you in a car is when it does something you neither asked for nor expected. And the Lister never did. It flew through the quick curves nicely planted,

it threw itself amiably sideways at the exit of the slow corners, and through the long medium-speed turns like Madgwick and Woodcote it would adopt whatever attitude you wanted. When I came in I felt I should have been wide-eyed, catatonic and drenched in sweat. In fact if I was wide-eyed it was really only because it had been so much easier than expected. I was laughing like a drain and moistened by rain alone.

This then is a brilliant machine, my only regret being I didn't have a proper crack at it in the dry. It may not have been the car Brian Lister wanted it to be in 1959, but that's a very different perspective to that we have today. In 2021 it stands as the ultimate example of the simple, sturdy, powerful open sports racing cars Britain did so well in the 1950s. Not just the other Listers and D-types, but the Jaguar-powered Coopers, Tojeiros and HWMs too. Of them all the Lister was the quickest, and the Costin the last. And this actual car is the last of the last, the final fling of a truly great, very important and much missed part of British motor racing history. 

***Our thanks to Peter Smith and the team at Bell Sport & Classic, where the car is now for sale, for bringing the Lister to Goodwood.***

**“The car may be 62 years old, but it feels ready for anything”**



This Costin has been race prepared for more than 30 years by Pearson Engineering



Uncovering  
the lost  
**genius**  
of Uncle  
**Carlo**

Hot tempered yet kindly, determined yet soft-hearted, opinionated but a natural team builder.

Enzo Ferrari thought him vainglorious, but Carlo Chiti had much to be truly proud of.

**Paul Fearnley** portrays a design and engineering genius whose reputation took years to recover from one misstep

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MONDADORI VIA GETTY IMAGES



Modena, May 1960:  
designer Carlo Chiti in  
conversation with  
test driver Martino  
Severi; Enzo is listening







TZ models were Autodelta's flagships but more humble GTAs brought the prizes. Below: Chiti oversees early 156 testing at Modena in 1961. Enzo watches while Forghieri makes notes





**B**espectacled, portly and soberly overdressed – raincoat (often even come shine) and a penchant for Borsalino hats, business suit, cardigan/pullover/tanktop, collar and tie – he was instantly recognisable at Scuderia Ferrari. Yet Carlo Chiti has largely become a forgotten figure despite his many achievements during a short but fecund spell at Maranello and later, and for very much longer, at Alfa Romeo via Autodelta. We'll gloss over his disastrous ATS interlude for now.

He joined Ferrari from Alfa as replacement chief engineer for friend and fellow Tuscan Andrea Frascchetti - killed testing an F2 Dino at Modena in 1957 - and thus was at the helm when Mike Hawthorn became Britain's first Formula 1 world champion. Before Phil Hill could become America's first three years later, Chiti, having overseen the final championship grand prix win for a front-engined car, achieved the seemingly impossible: he coaxed Enzo into 'putting the horse behind the cart'. His subsequent rear-engined 'Sharknose' designs put Ferrari firmly, albeit briefly, back on top in F1 and assured its sports-racing hegemony - bolstered already by Chiti's front-engined Testa Rossa iterations - until long after his summary exit.

For he was among eight key staff whom in November 1961 united to complain about pay and conditions - and Enzo's wife. Stirred by son Alfredino's death in 1956 and her husband's infidelities, Laura had been taking a keener interest in the company, as was a principal stockholder's wont. Acting as her chauffeur/guardian at races did not sit well with Chiti, while Laura's lack of diplomacy made for an easy target in a macho world. Her slapping commercial manager Girolamo Gardini was the trigger for the walkout. Some of Enzo's renegade 'generals' trailed back after a month or so, quietly re-pledging allegiance. Opinionated and voluble, cultured and erudite, Chiti was not among them. Enzo blamed external causes for that - but not before letting slip this about Chiti in his 1962 book *My Terrible Joys*: "A man of vast theoretical

knowledge equalled only by his eagerness to win a reputation for himself."

Two bulls in a field.

Though Chiti would eventually be roundly upstaged by his successor Mauro Forghieri, he had laid down vital groundwork: installing a small wind tunnel at Maranello; a belated acceptance of disc brakes and fibreglass; and a low polar moment that pre-dated Forghieri's *Trasversale* gearbox by 13 years. The engine, tending towards simplification under Chiti, was no longer undisputed king. According to the ruminative Phil Hill, this "more holistic approach" meant that the F1 Sharknose had been "built the way a racing car ought to be"; he would join Chiti at ATS for 1963.

The latter project was too soon shorn of the financial impetus promised by Count Volpi of Serenissima and became a motor racing byword for laughable incompetence. So bad was it that Chiti would spend 16 years restoring his F1 reputation through Alfa Romeo GTs, saloons and sports-prototypes, and as an engine supplier to McLaren, March and - to much greater effect - Brabham.

"Chiti never criticised Enzo Ferrari," says Andrea de Adamich, who drove with aplomb all of the above bar the Brabham. "He always spoke well of him. Though he never spoke of his past successes."

Maybe so, and yet...

"I think it was always Chiti's aim to return to F1, to beat Ferrari," says Bruno Giacomelli, the lone driver upon Alfa's long-awaited return to grands prix. "He never said anything



GETTY IMAGES, GRAND PRIX PHOTO / NIGEL SNOWDON



## CARLO CHITI

about it but, believe me, it was what he'd had in mind since the day he left.

"It was only because of Chiti that Alfa did F1. No Chiti, no way! There was always a fight against Alfa Romeo. They had won world titles with Farina and Fangio, and for sure they didn't like Autodelta. Plus Alfa was a state-owned firm losing 200 billion lire a year.

"So we had to enter F1 softly, without too much glamour. We didn't even have a proper truck. They put us at the end of the pit lane [at Zolder in 1979], with no garage for our materials. And we showed up with an old car. We did only five races that season."

Born in Pistoia in December 1924, Chiti earned an aeronautical engineering degree at Pisa University - he also studied chemistry - and joined Alfa Romeo's Experimental Department. Early excitement, including the 6C 3000CM that Fangio drove to second place in the 1953 Mille Miglia, faded quickly as the Milanese company throttled back. Thus he arrived at Ferrari brimming with ideas corked by frustration. There, however, he would fall between two stools being neither old school nor a young thruster as a burgeoning company was incorporated.

**H**IS SECOND SPELL WITH ALFA was necessarily a steady burn after ATS. Captain of a ship buffeted from without, he did his utmost to shield and encourage those within an unlovely walled compound that evoked a correctional facility and harboured organised chaos and innovative endeavour in roughly equal measures. This process involved his tempering a volcanic temper - the revolver kept in a drawer was sometimes fired in frustration at the office ceiling - via a big heart and a soft touch for small stray dogs, be they three-legged or one-eyed, which he rescued and sheltered at the factory.

"During practice at a Buenos Aires 1000km a dog crossed the circuit in front of the pits," says de Adamich. "Chiti was fat but fantastically agile when needed; he ran onto the circuit to save it. And one of the dogs at Autodelta would immediately arrive, protected by Chiti, whenever it heard money in the coffee machine; it wanted the sugar.

"Ferrari was more professional," continues de Adamich, whose single-seater ambitions took him to Maranello from 1968-69. "But not so relaxing. No human relations; Enzo never spoke with his mechanics. But Chiti was a fantastic human being. Autodelta was his family and he 'lived' in the workshop. Only Bruce McLaren was like him in racing. He was everywhere. He had complete responsibility.

Engineers like him don't exist today because everybody specialises. He did everything, like Forghieri at Ferrari, but it was harder to have a relationship with Mauro. Of course, they were not perfect in all capacities; they were a little bit overlooking everything."

Nascent Auto-Delta, founded jointly with Alfa dealer Ludovico Chizzola in Udine and registered in March 1963, was first intended to make existing products more competitive for others. Before the end of 1964, however, it had been drawn to Alfa's bosom - and lost the hyphen in the process - at the farming hamlet of Settimo Milanese. Empowered to get a once sporting marque racing (and rallying) again as its official competitions department - prototypes, engines, team - it would perform the role the Scuderia Ferrari had in the 1930s: to enable Alfa either to bask in glory or deflect defeat.

The beautiful and successful TZ2 of 1965 was its first standalone, but it was the neat and nifty wheel-waving GTA that truly brought home the bacon: nine ETCC titles - four drivers' and five manufacturers' - from 1966-72 that make it arguably the greatest touring car. The sports-prototypes were not so fruitful, the elegant T33/2 generally lacking the speed and reliability of rival Porsche. The eventual breakthrough came in 1971 with the 3-litre V8 T33/3 monocoque: Alfa Romeo's first world championship race victory for 20 years.

"We were beating Porsche 917s driven by Siffert and Rodríguez when a circuit was slippery," says de Adamich, who scored that Brands Hatch win alongside Henri Pescarolo. "I had returned because [Giuseppe] Luraghi, president of Alfa Romeo, had promised me a V8 for an F1 project: with McLaren [in 1970], it was 100% me; with March [in 1971], Chiti directed. The McLaren car was fantastic to drive. Unfortunately, the engine was uncompetitive. The other problem was the McLaren engineer who came to Autodelta and made suggestions about its prototype. Chiti didn't like this and started talking with March. They needed money and free engines, so were not criticising."

The flat-12, promised but never delivered to March, that followed was clearly a direct challenge to Ferrari, although it being routinely swept aside by V12 Matras in the 1974 World Championship for Makes proved that more work was needed.

"We reckoned that Ferrari's flat-12 had a good 30-40bhp more than a Cosworth DFV," says Brabham designer Gordon Murray. "As a percentage, that was huge in the 1970s, and we felt we needed a '12' to remain competitive: Porsche wanted quite a bit of money for theirs; Autodelta's, I believe, was free." ●



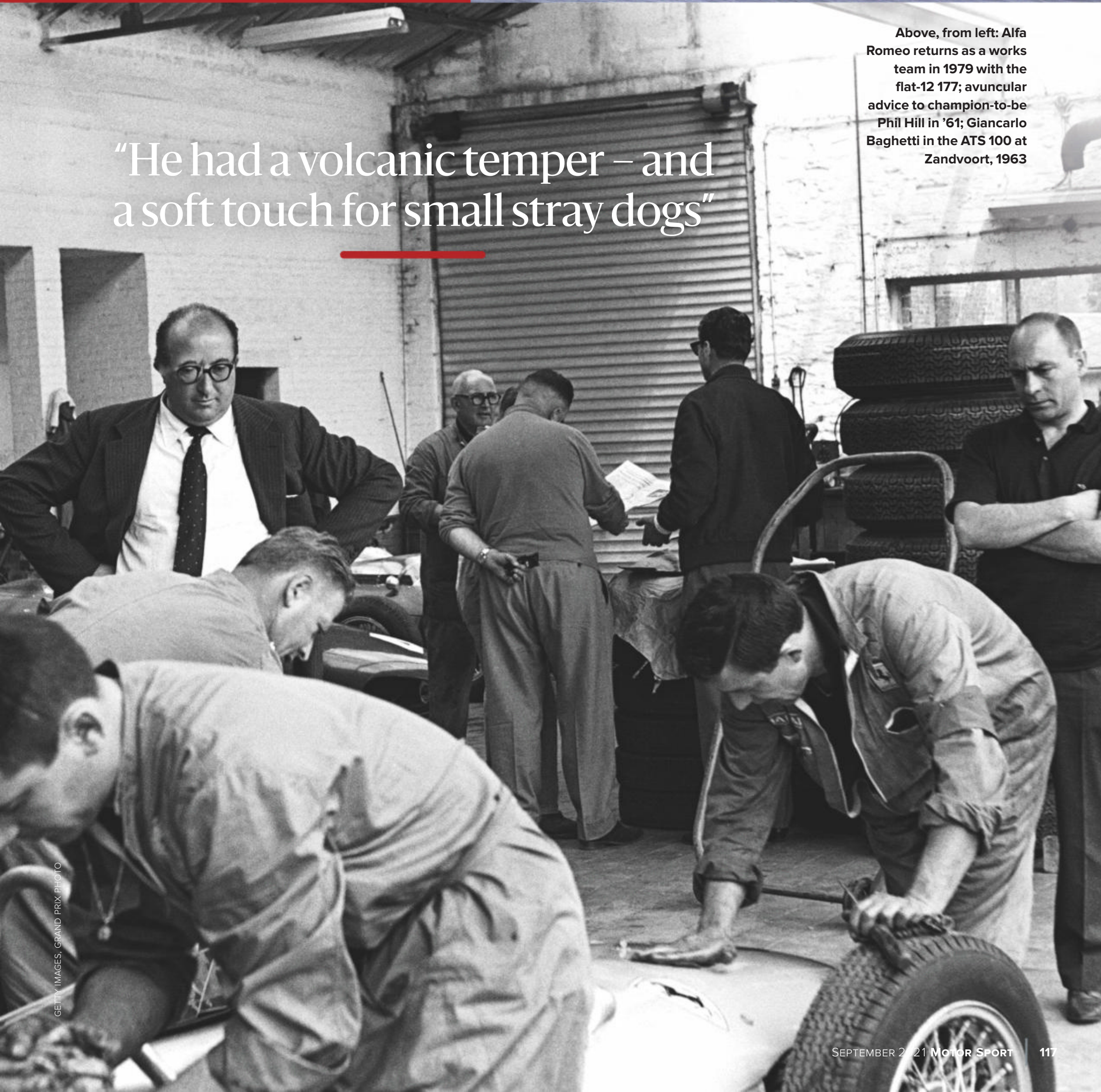
Chiti watches Ferrari mechanics work on the 156s. He oversaw every aspect of his cars from drawing board to pitlane, especially once he moved to Alfa and Autodelta





Above, from left: Alfa Romeo returns as a works team in 1979 with the flat-12 177; avuncular advice to champion-to-be Phil Hill in '61; Giancarlo Baghetti in the ATS 100 at Zandvoort, 1963

"He had a volcanic temper – and a soft touch for small stray dogs"





As a result of this deal, Alfa's 1975 sportscar programme, bar its second Targa Florio win since 1971, was farmed out to Willi Kauhsen's Cologne-based team. That it won seven of nine rounds to secure the World Championship for Makes was a backhanded compliment.

"We didn't win races; we absorbed them," says Derek Bell, scorer of three of those wins alongside Pescarolo. "The Alfa was a bloody good car. Sounded wonderful. But the [turbocharged] Alpine-Renault should have won all the time. We used to go like hell and hoped they would fall out. They did."

"I never saw anyone from the factory - Chiti was never there - and as far as I know the cars stayed at Willi's. I am sure that Autodelta was doing a wonderful job rebuilding engines and getting them to us, that it was a more cohesive relationship than we imagined, but it was a German operation in my opinion."

Autodelta's hands-on relationship with Brabham in contrast would suffer a sticky start.

"Had I developed BT44B and stayed with Cosworth we could have had a much more competitive 1976-77," says Murray. "The bad

side of Autodelta was that they couldn't control themselves. They tried different stuff all of the time and I didn't know about all the changes."

When finally it was persuaded to provide a base-spec engine for 1977, Autodelta called it Tiger. Its development was Super Tiger.

"I should have won twice that season," says John Watson, whose BT45B came within half a lap and a cup of fuel of victory in the French GP at Dijon-Prenois. "The engine looked fantastic. Had it been around in the early 1970s, when it would have been more appropriate, it probably would have won lots of GPs."

Murray: "Slowly we made it lighter, more reliable, less thirsty and we were pretty competitive by 1978." Niki Lauda scored two wins as Chiti came within five points of beating Ferrari in a constructors' battle. "But ground effect had turned up and the engine was the wrong shape. So Autodelta built us a V12 for 1979, in about three months. They were excellent when a quick reaction was needed."

"It had been the same with the Fan Car [in 1978]. We had about two-and-a-half months to conceive, design, build and test it before

the Swedish GP, and Autodelta went into overdrive. That it was successful vindicated our sticking our necks out, and Chiti was as disappointed as I was when [team boss] Bernie [Ecclestone] asked us to withdraw the car under pressure from the other constructors."

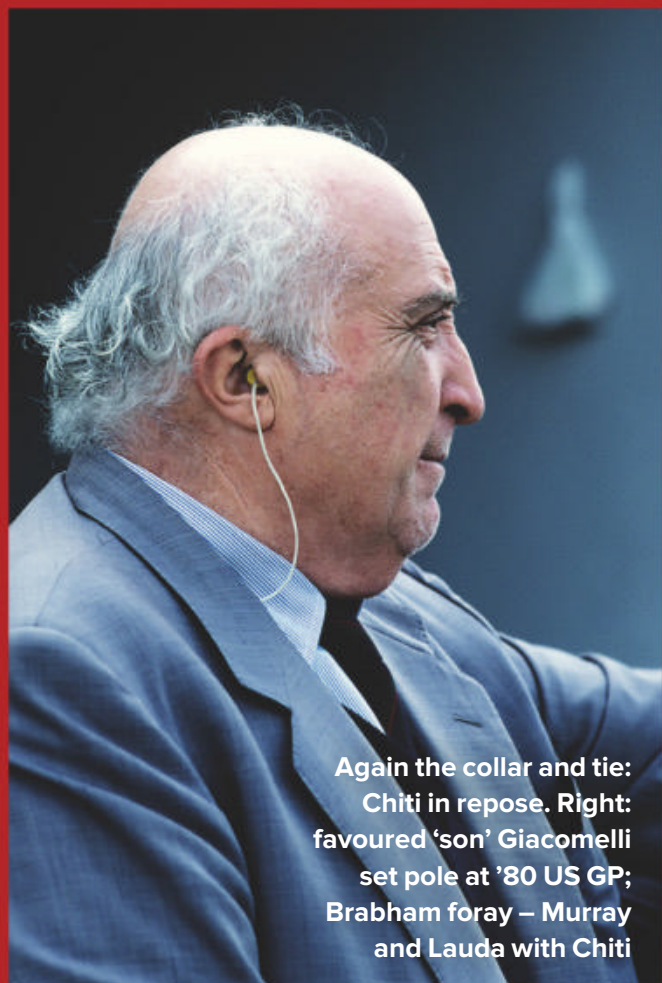
That rushed V12 for 1979 proved unreliable; Brabham was using a Cosworth before season's end. The supposedly hard-nosed Lauda walked away. Though he had sensed its winning potential, a V8 felt boring after a 12.

Murray, to a lesser degree, was conflicted, too: "There was a lot of mutual respect. Those old boys of the 1960s and 1970s had so much experience that instinctively they knew what to do, what was right, what was wrong. Chiti was a genius in his own way. You needed people like him when teams were small, for leadership and decision-making."

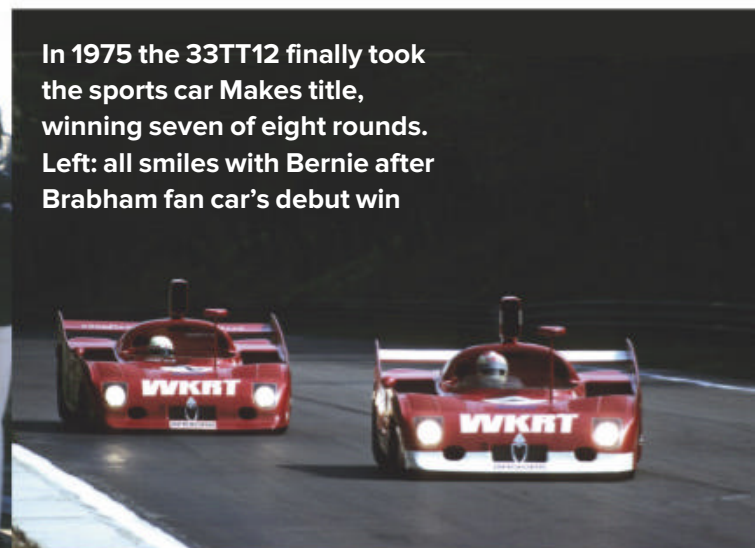
"He was a good sport, too. Once, he took us all out for dinner and there I did my trick whereby I run my hand slowly through a flame without burning myself. Chiti picked up the candle on the table in front of him, stuck it in his mouth and kept it there for 10 seconds or so. When he took it out it was still alight."

Watson: "He was like a character from a Fellini film: a big man by then, those glasses, sweat pouring off him. He had a penchant for wearing a knotted handkerchief when it got hot, and would put his feet in a bucket if he was really overheating. But there was a great

## "You needed people like him for leadership and decision-making"



Again the collar and tie: Chiti in repose. Right: favoured 'son' Giacomelli set pole at '80 US GP; Brabham foray - Murray and Lauda with Chiti



In 1975 the 33TT12 finally took the sports car Makes title, winning seven of eight rounds. Left: all smiles with Bernie after Brabham fan car's debut win





aura about him. His reputation was considerable and I respect people like that.”

Many of Chiti's legion of drivers called him ‘Uncle’, and he formed very strong bonds with the likes of Richie Ginther, Lucien Bianchi and Teodoro Zeccoli, whose feedback he trusted.

“He could be very tough,” says Giacomelli. “He had a temper: *Toscanaccio*. It means many things Tuscan - a strong character, but easy to wind up. But we respected each other. I read in an interview [with Chiti's medical professor son Arturo] that I had been like a son to him. He never told me that! But it was one of the best days of his life when I qualified on pole at Watkins Glen [the final GP of 1980]. At dinner that night the atmosphere was fantastic. We were right up there, at the end of our first full season.”

New recruit Patrick Depailler had predicted that Alfa the constructor would win a grand prix in its first full year back - and it almost came true.

Giacomelli: “We had lost Patrick [in a Hockenheim testing crash] two months before and the responsibility was on my shoulders. Alfa and Chiti supported me. Watkins Glen was supposed to be a coronation of all the hard work we had done. I was leading, not relaxed but comfortable: fantastic grip, fantastic balance, using 500rpm less yet getting quicker. Then we had a failure that we'd suffered a couple of times before: an ignition coil.

“I had already tested the car for 1981 and set a new record at Alfa's Balocco test track. The prospects were good. I signed for two years. Then skirts were banned and Goodyear retired and we had to start over. For half that season we ran 6cm above the road while other teams invented systems to lift and drop their cars. Chiti said, ‘We cannot cheat like that. We are a big company with a reputation.’

“Then Gérard Ducarouge arrived - I think it was Chiti's decision to hire him, but then they fought - and he modified the car. It was fantastic by the end of the season. Again.” Third at the Las Vegas finale was so nearly second and might have been a win but for a half-spin and a struggle seeking reverse. “Then they changed the regulations again: to flat bottoms.”

Ducarouge's carbon-fibre 182 showed early promise in 1982 - de Cesaris set pole at Long Beach and ran out of fuel in sight of victory at Monaco - but Alfa would officially withdraw. It was a reshuffle: Paolo Pavanello's Euroracing was handed responsibility for the F1 cars from 1983, Chiti was put in charge of engine design - a demotion no matter how you dressed it.

He had, however, been experimenting with twin turbos as long ago as 1977, when T33SC won all eight rounds of a lacklustre World Sportscar Championship. Alfa's 1.5-litre V8 thus equipped for 1983, de Cesaris would lead and set fastest lap at Spa before retiring from second, and finish second at Hockenheim



Gachot in his Coloni confirms the Subaru flat-12 is no winner

and at the Kyalami finale - but an increasingly isolated and embittered Chiti was on his way out, to establish Motori Moderni in Novara. While Euroracing was scoring a big fat zero in 1985 - leading to total retreat from F1 by cash-strapped Alfa - newcomer Minardi was striving with Chiti's V6 turbo for three seasons without troubling the scorers.

Chiti's final F1 venture sadly smacked of ATS: the much-derided 3.5-litre flat-12 for the Coloni Subaru debacle of 1990.

He died of a heart attack in July 1994.

“We had three full seasons,” says Giacomelli. “We needed five at least. What we did in the circumstances was fantastic. And our best car was the 179 of 1980, built and developed under Chiti's direction. Italians thought him eccentric, too, but, believe me, he was very clever, cleverer than people thought. Sadly his intelligence wasn't used in the best way it could have been.”



On the wane: despite past glories, Chiti's Motori Moderni projects struggled. Here at Brands in '85 he muses on how to boost Minardi's performance





# The lone ranger

In 1994, Bugatti's return to the track was loaded with sentiment but the car didn't follow the script. **Étienne Raynaud** joins the owner of the firm's last modern racing car at the scene of its final race

PHOTOGRAPHY: REMI DARGEEN





Only two official EB 110 racing cars were built; an LM for Le Mans in 1994 and this SC for participation in IMSA and the BPR Global GT Series



**I**t's a glorious day at Dijon-Prenois, the French Grand Prix's former home that sweeps through the Burgundy countryside.

Formula 1 has not raced here since 1984, but the venue remains very active and retains a significant but perhaps overlooked distinction: 25 years ago, this is where Bugatti made its final appearance in contemporary motor sport with the car you see here, an EB 110 SC (Sport Competizione) entered by the Monaco Racing Team for the Two Hours of Dijon.



The 'Sports Competizione' was a revamped EB 110 Super Sport that was lightened for the track





## CIRCUIT DIJON-PRENOIS®



## “It was launched on the 110th anniversary of Ettore’s birth”

In the hands of experienced race/rally driver Bertrand Balas and MRT owner Gildo Pallanca Pastor, it finished third in the opening heat but retired from the second following a collision.

Since that day, Bugattis have competed only in historic and vintage events.

To mark the end of that era for the marque, the current owner of the EB 110, a European Bugatti collector, has brought it back to Dijon for today’s test drive exactly a quarter of a century on. “The SC is maintained in perfect condition,” he says. “I promised myself to have it driven in all the places that have been landmarks in Bugatti’s fascinating race history. Being here today at the Dijon-Prenois track with the EB 110 SC, the last works racing car of Bugatti, 25 years after the final [period] race of a Bugatti, is one of these important moments for sure.”

Bugatti’s track record includes a cluster of grand prix wins in the 1920s and 1930s, five straight Targa Florio victories from 1925-1929 and Le Mans 24 Hours conquests in 1937 and 1939. The firm lost direction, however, following the Second World War; founder Ettore Bugatti died in 1947 and eldest son Jean - a gifted engineer and Ettore’s natural successor - had perished eight years beforehand when he crashed a Type 57C on roads close to the Molsheim factory. Another son, Roland, attempted to keep the business going, but it was soon in serious decline.

Bugatti’s final grand prix car, the T251, was distinctive - it featured a transverse straight eight! - but not terribly competitive; Maurice Trintignant drove it in the 1956

French Grand Prix, its only appearance. The firm continued making parts for the aircraft industry until it was purchased in 1963 by Hispano-Suiza, at which point it seemed unlikely that any car would again be adorned by its famous Macaron badge.


Until...

In 1987, Italian Romano Artioli - a successful entrepreneur and major Ferrari dealer who would later also acquire Lotus - bought the rights to use the Bugatti name and spared little expense in bringing the brand back to life. A state-of-the-art factory was built in Campogalliano, Italy, about 20 miles from Ferrari’s Maranello HQ, and the Lamborghini Countach’s creator Paolo Stanzani was hired as technical director. He moved on before the project was complete and his place was taken by Nicola Materazzi, whose previous credits included the Ferrari 288 GTO and F40.


The EB 110 featured a carbon monocoque, 3.5-litre quad-turbo V12 that generated 560bhp at 8000rpm and four-wheel drive, the latter contributing to relative heft for a GT, at 1920kg. It was launched to great fanfare in Paris on September 15, 1991 - the 110th anniversary of Ettore Bugatti’s birth - with film star Alain Delon at the helm.

The impetus to put the car on track came from French press mogul Michel Hommel, who dreamed of taking the marque to Le Mans in 1994, 55 years after its second - and most recent - victory. That led to the creation of the EB 110 LM, after a hectic six-month development programme between Bugatti and Le Mans-based engineering





The SC's involvement in its final race here was short-lived, with a crash on the second race



Notable signatures include Bugatti chief Romano Artioli and designer Giampaolo Benedini

firm Synergie. Loris Biccchi, Bugatti's test driver from the dawn of the Artioli era, says: "It was extraordinary, everything was ambitious - even a little crazy. But the Bugatti story was crazy from the start, so it all made sense..."

Veterans Alain Cudini and Jean-Pierre Malcher were hired to race the car alongside Eric Hélary, 1990 French Formula 3 champion and Le Mans winner three years later with Peugeot. When Malcher was sidelined by illness, rising star Jean-Christophe Boullion stepped in to replace him.

In 1994 Le Mans was run to GT regulations, but German team Dauer exploited a loophole by converting a Group C Porsche 962 to road specification... and then switching it back again. It was by far the fastest thing on track, but the Bugatti was among the quickest of the pure

GTs. Its chances were compromised before the start, however, when Synergie discovered a fuel leak. The only solution was to patch up the damage with Araldite and run the car on half-tanks for the first couple of stints, while the repair cured. Once it was able to run properly, the Bugatti moved up into the top six before being delayed by turbo problems. A finish still appeared to be achievable, but Boullion speared into the barriers during the final hour as the result of a suspected puncture.

For all the disappointment, the car had shown potential and that's how gentleman racer Pastor became involved. He visited Bugatti late in 1994 to outline ambitious plans for his Monaco Racing Team to run a brace of EB 110s in the US-based IMSA championship, fledgling BPR Global GT Series and Le Mans.

This led to a concentrated weight reduction programme, refined aerodynamics and significant adjustment of the engine mapping in a bid to avoid any repetition of the turbo problems that afflicted the car at Le Mans. The uprated version was known as the EB 110 SC.

Biccchi: "One of the biggest differences between the LM and the SC is that Bugatti was able to work on the suspension by changing the kinematics, designing a new hub, studying the stiffness of the springs and calibrating the dampers. The original Le Mans car was made too quickly; we took important ideas from it."

In addition, Pastor also targeted a new ice-speed record. Artioli agreed to provide a production EB 110 SS and Pastor reached 181.14mph across Lake Oulu in Finland, which would remain unbeaten for 18 years.







Monegasque businessman and racer Gildo Pallanca Pastor owned the Monaco Racing Team while still in his twenties



The SC at the 24 Hours of Daytona in February 1996, among a field heavy with Porsches

DPPI

While that generated positive publicity, the reality of Bugatti's situation was different. The EB 110 had not proved very profitable, a situation compounded by the long and costly process of homologating it for the American market. With Bugatti's situation looking increasingly precarious, suppliers began to shy away from any competition programme and MRT had to scale down its ambitions: it had hoped to buy three cars, including a spare, but in the end Bugatti was able to build only one.

The car made its debut in the Watkins Glen 3 Hours on June 24, Pastor and former grand prix driver Patrick Tambay finishing 19th overall and fifth in class. One month later, the same pair took 16th/sixth at Sears Point, before the car was freighted to Japan for Pastor and H  lary to contest the Suzuka 1000Kms. Gearbox

trouble forced their retirement and the car subsequently returned to Campogalliano for repairs. It was still in the workshop when Bugatti was placed in receivership that September; MRT had to obtain a court order to reclaim its car and would henceforth be responsible for its maintenance.

In the hands of Pastor, Derek Hill and Olivier Grouillard, the car ran in the 1996 Daytona 24 Hours, qualifying second in class and running as high as sixth overall after two hours, but gearbox gremlins struck and the car retired.

Pastor and Tambay shared the car during pre-qualifying at Le Mans, but they failed to make the cut for the 24 Hours after the latter crashed. Six weeks later came Dijon, a swansong for both car and - until current owner VW decides otherwise - marque. It was the end of

a journey fuelled by fierce ambition, but stifled by a shortage of resources.

Bicocchi has driven the EB 110's period rival the McLaren F1 and says: "I like the McLaren and its BMW V12 sounds incredible, but I think the EB 110 had many more innovations: an in-house five-valve-per-cylinder engine with an integrated transmission in the engine block, four-wheel drive, six-speed gearbox, a carbon monocoque chassis, ABS..." Andy Wallace has also driven both (he shared the third-placed McLaren at Le Mans in 1995) and describes the Bugatti as "way ahead of its time".

After Dijon, MRT repaired the EB 110 and Pastor retained it, now road registered, until 2015. The current owner still uses the car regularly and Dijon ticked off another Bugatti landmark in his mission. The US now awaits. ●



"I like the McLaren F1, but the EB 110 had many more innovations"





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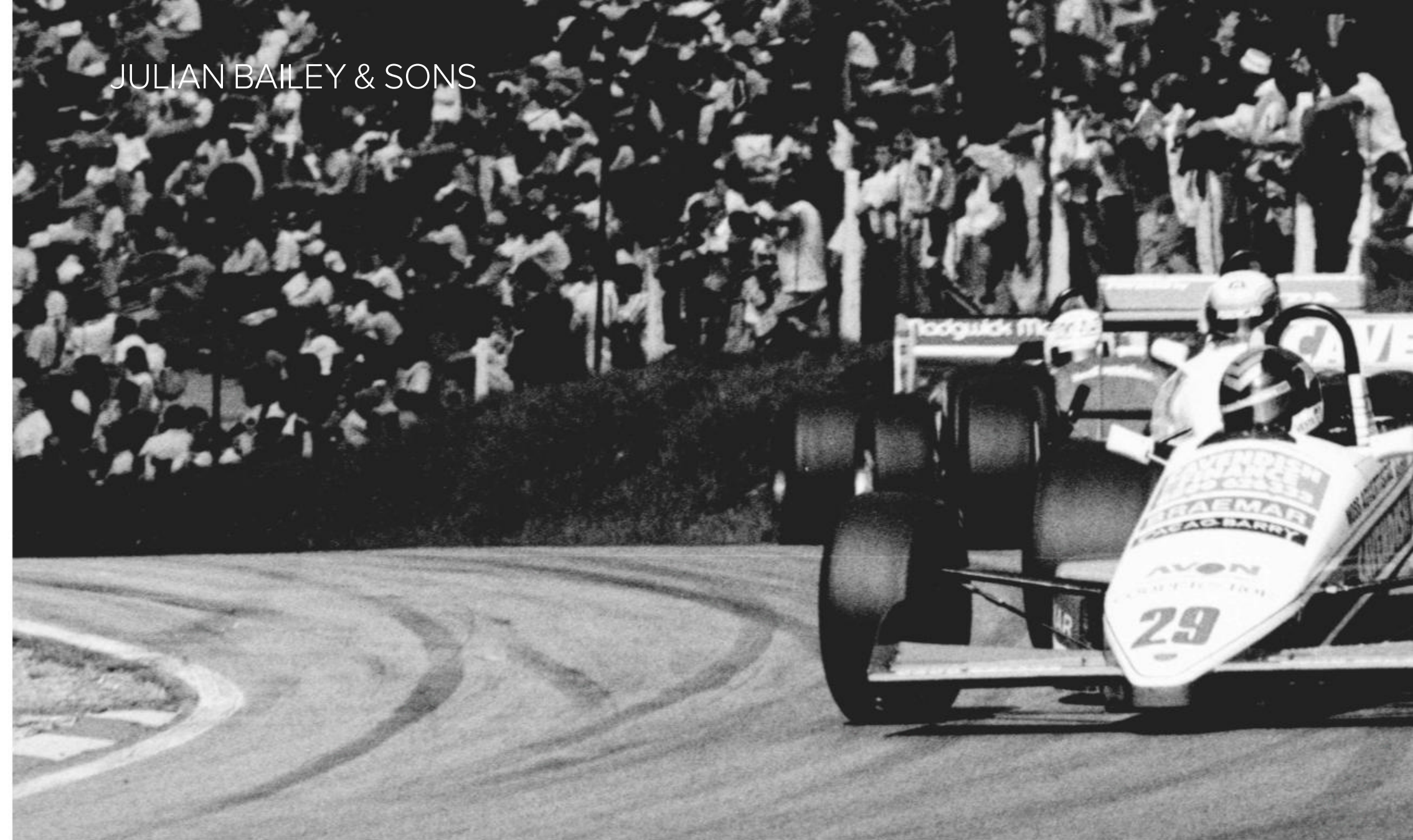
Julian Bailey holds court with son Daniel Bailey, left, who is CEO at Veloce Racing, and stepson Jack Clarke, chief innovation officer at the company

# Family fortunes

Few working class people compete at motor sport's top level, yet Woolwich-born Julian Bailey has rubbed shoulders with the best. Over a drink or two, the Rat Pack racer – with sons Dan and Jack in attendance – tells **Damien Smith** how he did it

PHOTOGRAPHY: ANDREW FERRARO





**J**ULIAN BAILEY WAS ALWAYS the dark horse of British motor sport's 1980s 'Rat Pack'. A tough, dour working class lad born and bred in a council house in Woolwich, he beat all the odds to claw his way to Formula 1 - as did comrades and rivals Damon Hill, Mark Blundell, Martin Donnelly, Johnny Herbert, Johnny Dumfries and Perry McCarthy (just). But Bailey never felt he truly belonged at the pinnacle (as he tells us, perhaps it was a class thing), and with just seven F1 starts to his name - six with Tyrrell in 1988 and another for Lotus in 1991 - this is a career best remembered for the raw promise of its early years, a Group C cameo with Nissan, Toyota tin-top shenanigans in the British Touring Car Championship's golden era, a fruitful Indian summer in a Newcastle United-backed Lister Storm and a final flourish with MG at Le Mans in 2001 and '02. It sure was colourful, certainly never dull - and it could and should have been so much more.

But the Bailey motor sport story is far from spent. The family's racing roots are buried too deep for that to be the case. Wife Deborah Tee remains a highly-respected PR through her MPA agency, brother-in-law Steven Tee is one of F1's finest photographers - just as his father Michael Tee used to be - and then

there's Indy 500 winner Gil de Ferran, who's married to a cousin of Deborah and Steven. But most significantly, Julian's sons are now carrying the torch, even if it's in a manner that leaves the old man scratching his head.

Stepson Jack Clarke made a decent stab of the racing driver life himself, rising as high as Formula 2 and winning a round in 2011 at Brands Hatch - Julian's favourite old stomping ground - before running out of steam after a BTCC season in 2014. Now Jack, 33, and his younger brother Daniel Bailey, who sensibly studied hard and initially headed for the City rather than Brands after graduating with first class honours in Spanish from Bristol University, run thriving esports business Veloce Racing, which has just diversified into the 'real world' as a team entrant in the W Series all-female single-seater series and the new Extreme E initiative. Veloce's Stéphane Sarrazin and Jamie Chadwick, the W Series champion Clarke also co-manages, had a tough start to their Extreme E adventure in the Al'Ula desert of Saudi Arabia back in March when Sarrazin rolled out of qualifying. But as the brothers have learnt from Julian, racing is all about overcoming adversity..

In the aftermath of the Saudi Arabia (mis)adventure, *Motor Sport* met Bailey and sons to re-tread some of what made Julian's career so eventful and find out how his natural instinct to hustle, then grab chances when they came, have fed directly into the DNA of

Veloce. Inevitably we gathered in a pub garden, The Running Mare in Cobham, Surrey, a popular motor racing watering hole run by Julian's brother, Adrian. Bailey has always lived hard and it's caught up with him. At 59, he's endured serious health problems in the past year - but that didn't stop a steady flow of scotch and Cokes as we talked. He can't have been easy to live with at times, but Jack and Daniel's obvious affection and warmth for the man they call 'Jules' rather than Dad speaks volumes. This is a proper racing family, with a modern twist.

**Motor Sport:** *Your Rat Pack generation were all hustlers, weren't they?*

**Julian Bailey:** "Everyone was. It was a case of dog eat dog really. If someone had a sponsor you'd try and nick it. I had Cavendish Finance [in Formula 3000] that started to appear on Perry McCarthy's car. I couldn't stop it, everyone had their own agenda. But I didn't mind. All fair in love and war."

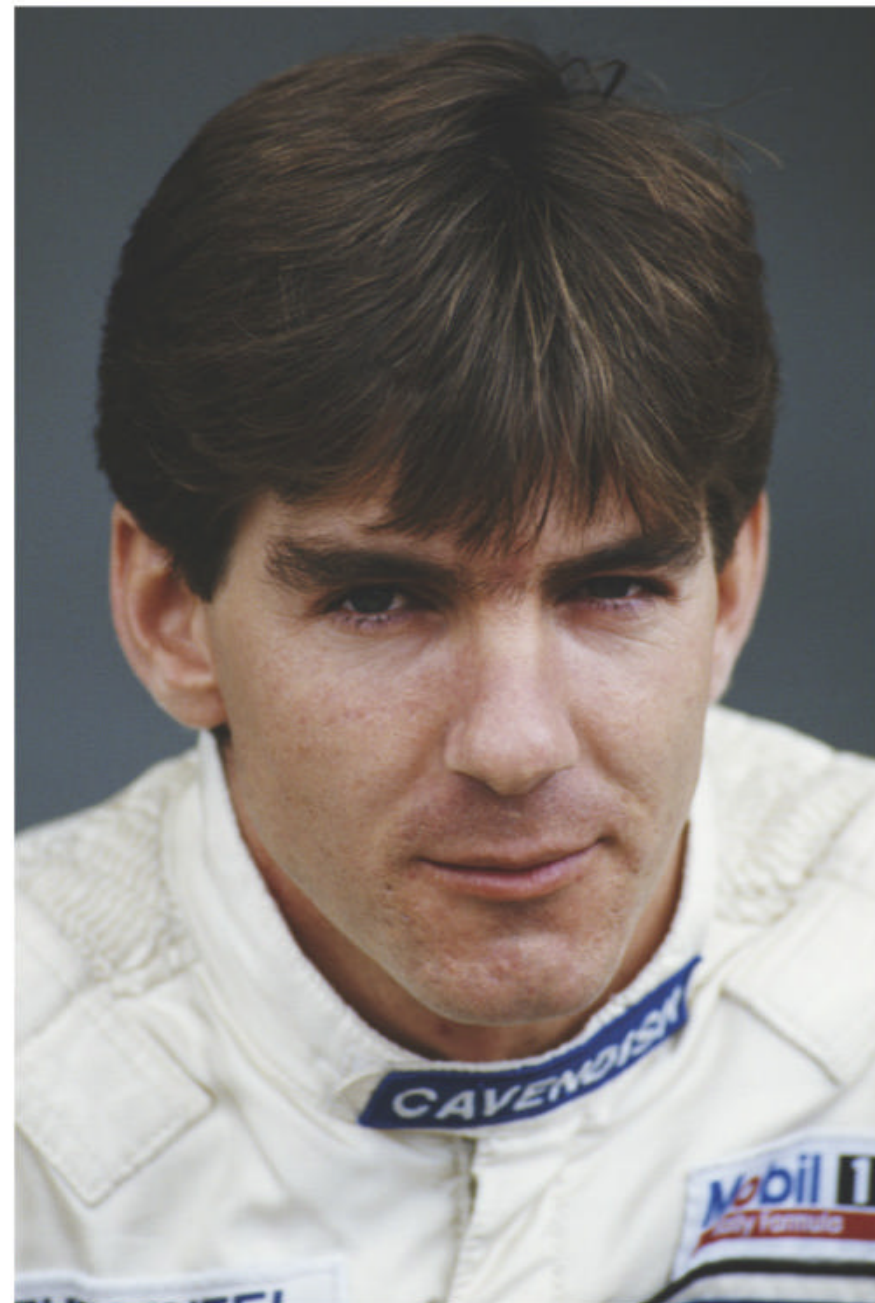
**At one point did you know you had the hustle gene?**

**JB:** "From day one, when I started to get into Formula Ford. It wasn't a case of what can I do, how can I get there? I thought that's what I'll do, and that was it. Everyone was different then. It was hard but somehow we managed, whereas I don't understand what Dan and Jack do. All this esports..."





The 1987 F3000 season brought Bailey some decent outings in Pergusa and the Bugatti Circuit, Le Mans (where the photo, right, was taken), crowned with a win at Brands Hatch – a favourite track



#### **What do you make of that?**

**JB:** “I wish I could do it, that I was one of these highly paid drivers. It’s amazing they can get blokes all round the world that earn the money they do. You couldn’t make a living out of Formula Ford. Hats off to them; I just wish I understood it more.”

#### **Damon Hill and Johnny Herbert told us recently that you guys had more fun back in the 1980s than drivers do today. Would you agree with that?**

**JB:** “Possibly, I don’t really know what goes on now. But you see all these polished professionals who are politically correct. In our day you said whatever came out of your mouth. You could get away with more.”

#### **Was there a camaraderie or was it rivalry?**

**JB:** “Rivalry really. From my point of view it was. Now we’ve become friends and we can joke about that. But we always had an eye on each other: what are they doing? We were always looking for an advantage.”

#### **You lived with adversity from the start. In 1980 you busted yourself up badly in a Formula Ford crash, didn’t you?**

**JB:** “Seven bones I broke. I came back faster, although not fitter obviously. Straight away when I tested at Snetterton, where it had happened, I was quicker by a long way. I couldn’t understand it myself. If you

overcome something like that... I was living in Spain, I had no money and thought, ‘You’ve got to give it a go and finish what you started.’ I couldn’t hold the wheel for more than two laps because my arm was as thin as a rake. But I ended up getting the lap record in both FF1600 and FF2000 after that accident. Remember the old Russell? One hell of a corner – a widow-maker.”

#### **You had a huge rivalry with Mauricio Gugelmin, who came over from Brazil with money. What was that like?**

**JB:** “It was intense. But I always felt I had the upper hand, that I was better. The fact I lost the [1982] RAC championship was because he took me out, no two ways about it. I could see him coming and bang, straight off the track. I got my own back by winning the Festival when he put himself off. It was nothing to do with me, he just turned in and went over my wheel. My wheel was bent and so deformed but I held on for two laps in the lead. I thought it was bound to break, but I won. He bit his tongue. Just desserts.”

#### **Have you seen him since?**

**JB:** “Yeah. He didn’t mention it.”

**Jack Clarke:** “We had a barbecue at Gil’s and he invited Mauricio over. It must have been 20 years since they’d seen each other. Jules [Julian] had got a lot smaller and Mauricio had got a lot bigger!”

**JB:** “Perry would say he’d pulled the rip cord – he looked like he’d blown up... Remember, his best friend was Ayrton Senna and they lived together, so I got to know him really well. He was a bit of hero in our eyes.”

#### **We have a memory of watching you in your black BP-sponsored Reynard FF2000. It was at Druids at Brands, you were miles out in front and you took an extreme wide line into the corner, lap after lap – to the centimetre.**

**Daniel Bailey:** “Whenever Jack raced at Brands Hatch there was always a lot of talk on different lines.”

**JC:** “Paddock Hill Bend was the one I most remember. We used to sit and watch old videos of Jules going through there. I put a lot of the success I had at Brands down to that.”

## “Remember the old Russell? One hell of a corner – a widow-maker”



**DB:** “If you look at Jack’s Formula 2 race win there, he came through from third to take the lead into the first corner, just as Julian did in F3000. It was a carbon copy move.”

**JB:** “The only difference is you hit the car in front of you and I didn’t...”

**JC:** “There was a slight brush of wheels. I got away with it, just about.”

## *What was it like growing up with Julian?*

**JB:** “I’d finished all my racing by then.”

**JC:** “Well I remember the Lister days really well and you and Jamie Campbell-Walter were always winning [Bailey won the British GT1 title with Campbell-Walter in 1999, then conquered the FIA GT Championship the following year]. It was exciting to watch.”

**DB:** “My first race action was when I was in the womb – at the back of a garage in 1991. He lit up an engine and apparently I kicked. But my real memories are of that Lister era when he and Jamie Campbell-Walter tended to stick it on pole and win. When they won the championship I was on a school trip and missed it! Then there was the MG Le Mans campaign with Kevin McGarrity and Mark Blundell [in 2002]. Now that looked like fun.”

**JB:** “It was because we knew we’d never win with that MG-Lola. The engine package was a disastrous decision [it ran with an AER 2-litre turbocharged inline four to qualify for the LMP675 prototype class], although the car itself was good. We didn’t take it that seriously because we knew we had no chance. Mark and I, we still had that old rivalry between us. With the Nissan Group C car [in 1989 and ’90, again shared with Blundell] we knew we had a chance of winning. When I look back I regret not appreciating how good it was.”

## *Jack and Dan, what has Julian taught you?*

**JC:** “How to mow a lawn in a straight line.”

**DB:** “I was the one mowing the lawn! I was quite proud of my skills actually.”

**JC:** “He was critical in an appropriate way. When you are head in hands, for me whether it was failing exams or spinning out of a race, the person you wanted to see was Jules because he’d been there and understood how to peptalk. He was critical but fair.”

**DB:** “With someone who came up against the odds like Julian, you learn there are no barriers to what you can achieve. With Jack, if we couldn’t find sponsorship for the next year we’d still find a way. From the start of Julian’s life to getting into F1 there were barriers he had to get over: coming from a council house in Woolwich, then living in Spain [his parents ran a supermarket] and coming back. We were all brought up to take it one barrier at a time.”

**JB:** “One at a time. You get there in the end.”

**JC:** “The good times when they roll make it worth it. But the bad times... not just when I was driving, Julian has always been a good example, the master of adversity. When I won a race he was not really around when everyone was popping champagne – well, he was still popping champagne, but on his own! The moments of adversity were where the nuances of his life and career were more powerful and that translates to where we are now. But this is such a feast and famine game.”

**JB:** “You have to appreciate the good times because the ups are few and far between. When you’ve won a race you feel wonderful, everything is beautiful and easy. But how many times does that happen?”

**DB:** “Saudi Arabia and the first Extreme E race was the first time I experienced that.”

# “Appreciate the good times; the ups are few and far between”

I wasn’t driving the car but obviously I was heavily invested. Like Julian had to as a young driver, we raised the finance to start Veloce Racing and we had deals committed here, there and everywhere that then fell through. One day we had the finance, the next we didn’t. Then you make it, but have a crash on the Saturday and don’t even get to race on the Sunday – and we’d been in Saudi Arabia for 10 days because of the quarantine time. It was gutting.”

**JB:** “That brought you back down to earth with a bump, didn’t it?”

**DB:** “It made me realise that while Extreme E is innovative, at its core it’s still a racing series. In the virtual esports world things are a bit more robust...”

**JC:** “It’s a lot cheaper when you crash! The sentiment carries through. I stopped racing after 2014 when I did the BTCC. I was all right, but all right doesn’t really cut it and there’s no better person than Julian to say it. But as Dan says, we love the sport and we’re sort of addicted to its adversity. When I gave up I came together with Rupert Svendsen-Cook, who is now along with Dan, myself and Jamie MacLaurin co-founder of Veloce. Those Jules stories I now tell in a beer garden on a Friday night are a perfect reference to how we run our business. You have those highs and lows, and those moments when you look like an idiot. Every racing driver has that. Those stories make up the DNA of Veloce. When

I was racing, we managed to clear out mum and Jules two races in... so we had to raise the cash race by race, selling stickers on a car, and then you’re looking out on a cool-down lap at somewhere like Castle Combe, and there are two men and a dog – and you’ve got to make that work. You have to be creative.”

## *How big is the esports market?*

**JC:** “We have 60 to 90 gamers under management and last month we hit 215 million views across 40 channels. For us it’s the same hustle you need for a junior formula category, but if you say Formula Ford to someone, they’re probably not going to know what you are talking about. Esports is a gateway to much greater accessibility.”

**DB:** “You want to apply that hustle and actually get some more long-term reward, which is

where esports came in and now Extreme E. We had to find a growth sector where what we know is applicable to the modern world. In Extreme E we can see a series that is born out of where we think the world is going: awareness of climate change, gender equality, the future of the automotive industry.”

**JC:** “The game changes but the players don’t. Jules says he doesn’t understand it, but at the end of the day it’s the same thing. Everyone is competing and it still takes blood, sweat and tears to get to the start line, and more often than not tears afterwards, too. There’s so much romance around the good old days and the Rat Pack. But the characters were cool and the stories are amazing. Jules, tell the story about the wing mirrors that fell off.”

**JB:** That was on the Tyrrell in Rio for my first grand prix [in ’88]. It was my first time in the car. In the hour and a half practice session, I wanted to get going, but for the first and only time in my career the steering wheel wouldn’t go on and they had to change the rack. Being Tyrrell, it took a while to find one. I finally got out with half an hour to go. I went out on the circuit and I didn’t know which way to go. I walked the circuit but only once because the heat was horrendous. All these people were coming past me and one wing mirror was down there, the other stuck up in the other direction. I came in the pits and said, ‘Ken, I can’t see behind me.’ He said, ‘Can you see





Julian has made five Le Mans appearances, including 1990 in a Nissan R90CK, *leading*. Above left: Jack and Dan are now involved with Extreme E

Even better than the real thing? A sim racing scene showing driver Baptiste Beauvois of Veloce eSports (piloting the Lexus) during the 2020 FIA Gran Turismo World Tour. Above: Lando Norris has a space ready in the pub's British title winners' panel



Jack, *right*, in 2014 – his final year racing – with would-be GP2 champion Jolyon Palmer. Left: Julian in the 2001 GT championship driving a 7-litre Lister Storm





in front of you? You should be looking ahead.' Nice bloke. I nearly took out every driver. Afterwards there was a queue of them - Senna, Mansell, Piquet - lined up to tell Ken I was terrible. Ken was very sympathetic. He said to Piquet, 'I remember when you started you were a w\*\*\*\*r as well.' Thanks, Ken."

### **How did you get on with Ken?**

**JB:** "I found him a very difficult person. Autocratic. That's why he survived in the business; he wrote the cheques. His wife Norah did the catering: the option was a ham sandwich or ham and tomato. That was it. I had better catering from F3000 teams. He said it as it was, which is how he survived. I admired him, but I didn't actually like him or get on with him."

**DB:** "Was that the time in Brazil when Ronnie Biggs ended up in your hotel room?"

**JB:** "No, that was with Benetton [in 1989]. I was out there to get in the car if Johnny Herbert couldn't [for his debut when Herbert was still recovering from the terrible leg injuries he sustained in an F3000 crash at Brands Hatch]. Once Johnny got through qualifying and I knew I wouldn't be racing, we went out that night. We met Ronnie Biggs in a club and he ended up back at my hotel. He started to fall asleep on a sofa and there was security all around him saying, 'You've

got to move, sir.' So I got him up, took him to my room and said, 'Have a shower, you'll be right as rain.' He got in the shower, then fell over and pulled the shower curtain down. I couldn't open the door because he was behind it. Then the phone rang and it was Adrian, my brother. I said: 'You'll never guess who's in my shower...' There was water all over the floor. Eventually I got him up, I don't know how. Good job Johnny Herbert didn't fall over that night, although I would have liked to have finished fourth like he did."

### **Your best was sixth at Imola for Lotus in 1991. Was that a good moment?**

**JB:** "It wasn't great really because I could easily have finished fifth, if not fourth. I spun, I came into the pits, my gearbox kept jamming. I was quick at Imola, much more than at Monaco [he failed to qualify around the principality and by the next race in Canada he'd been replaced by Herbert. When Bailey landed the drive at Lotus, he

recalls being handed a set of overalls with Herbert's name on the belt]."

### **Why is it that you never got your head around Monaco?**

**JB:** "I don't know. It's a cognitive thing really. Macau, I loved it, but Monaco... it's a class thing, I suppose. I never really believed I belonged there. At Macau I did because it was a s\*\*\*hole."

### **You've always been very honest about your career. Do you have regrets?**

**JB:** "Yeah, obviously. To borrow a great line from a film, I felt like I could have been a contender, but I never was. I don't know why. I never had the material around me to make it. Sometimes I'd look at Mika Häkkinen [his team-mate at Lotus] and think you lucky b\*\*\*\*\*d. I wish I could have been like I was in FF1600 or FF2000. I was at my best then. I felt I could have beaten Ayrton Senna in those cars. That's what I regret."

# "I found Ken Tyrrell a very difficult person. Autocratic"

A first – and only – F1 World Championship point arrived for Julian driving for Lotus at the 1991 San Marino GP



GETTY IMAGES, ANDREW FERRARO, GRAND PRIX PHOTO, DPPI





The Bailey-Clarke wall of fame at The Running Mare. Above: MG-Lola EX257 at Le Mans in 2002 and a fifth DNF



Esports – a mystery to Julian but a thriving scene



**By the time you got to Lister you were very assured, unlike earlier in your career.**

**JB:** “Certainly in F1 I didn’t feel confident. Just the fact I didn’t have the materials. At Imola I remember Roberto Moreno coming past me in that Benetton-Ford and he was miles an hour quicker than me in a straight line. How can you compete with that?”

**But you knew you had the ability?**

**JB:** “Yeah, I think I did. But I knew I was never going to get in one of those cars.”

**What have you guys taken from that?**

**DB:** “We’ve been lucky to get a lot of that grit. We’ve also been lucky to have a nice childhood and education, then combine that with a strategy and mental aptitude and we’ve been in a really good place to take a lot of the best from Julian’s career and apply it. And I think that’s what it is: application.”

**Where are you trying to go with Veloce?**

**JC:** “We have this amazing esports business that is its own ecosystem. We work with Mercedes, McLaren, Alfa Romeo, with Lando Norris, we even have a team with [boxer] Manny Pacquiao now. We’ve established ourselves and the reach we have is global, just three and a half years since we founded that side of the business. At the same time, myself

and Rupert manage Jamie Chadwick, one of the fastest female racing drivers in the world, and we’re in what we believe to be an incredibly pioneering series in Extreme E. Where are the opportunities today? A young Julian Bailey in 2021 would say in electric vehicles, females racing and esports. Where can we go? We want to just keep going. There’s a lot of electric motor sport on the horizon. We want to maintain the position we have in esports. For me it’s come off the back of what Jules would say was an unsuccessful racing career. I was good on my day, but ultimately not good enough. Now the fan in me is really proud we have Adrian Newey on board [as ‘lead visionary’], double Formula E champion Jean-Éric Vergne as an investor. Veloce can go anywhere. We’ve got the confidence that maybe Jules lacked in the past.”

**Julian, what do you think of what these guys are doing?**

**JB:** “Good luck to them. I don’t understand it, I wish I did. Because I’d be good!”

**You must be proud of them.**

**JB:** “I am, very proud. I just hope they don’t crash first time out at the next race.”

**JC:** “Look under his jacket - he’s wearing a Veloce shirt. He’s more committed than he lets on, even if he doesn’t understand it.”

A formal launch for the Tyrrell 017 in 1988, with Julian, left, and Jonathan Palmer dressed for the occasion





## 1972 Jaguar E-Type Series 3 V12 Roadster

British Racing Green with Cinnamon Connolly Interior - *Unrestored with Heritage Certificate* \*\* 11k mls only \*\* **£199,995**



## 1972 Ferrari 246 Dino GT

Bianco Polo with Black Interior - *Totally Original Throughout* - UK Car - 1 Owner - Full History \*\* 34k mls only \*\* **£499,995**



## 1968 Jensen Interceptor Series 1

*Immaculate Example in California Sage with Black Leather* - Unrestored - 2 former Keepers \*\* 13,361 mls only \*\* **£125,000**

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Telephone: 020 8418 9191 or 07836 522234





# THE SHOWROOM

BUYING, SELLING, AUCTIONS, MEMORABILIA

John Barnard's MP4/1 was a trailblazer with its carbon fibre composite chassis. Rivals were quick to switch



DEALER STAR CAR

## Laudable qualities

The McLaren MP4-1B that dominated and won the 1982 British GP is on sale. As **Simon de Burton** reveals, it's a born winner

SOME BELIEVE FORMULA 1 ENJOYED its golden era during the '70s and '80s. If that's when you grew up, there's a good chance you spent more than a few summer Sunday afternoons glued to the grand prix coverage on the family television set - and if your parents were sufficiently well-heeled to own one which received images in glorious colour, the red and white livery of the Marlboro-

sponsored McLarens will undoubtedly be etched on your memory.

In those days, every F1 meeting seemed to hold a thrill around each corner, and the 1982 British Grand Prix at Brands Hatch was no exception. In a scenario that currently seems alien in our post-Covid world, the event attracted a record crowd of 100,000 on a perfect sun-soaked July day - and the drama started even before the race got underway, with

Keke Rosberg being forced to relinquish pole position when his Williams refused to move at the start of the warm-up lap.

No sooner had the flag dropped on the race proper than Riccardo Patrese's Brabham stalled on the grid and was slammed into by René Arnoux's Renault. Not long afterwards, Chico Serra's Fittipaldi-Ford turned over, causing John Watson's McLaren to spin off the circuit - and then race leader Nelson Piquet's Brabham



Niki Lauda finished the 1982 season in fifth; he remained with McLaren until the end of 1985



Its 3-litre Cosworth DFV V8, left, is ear-pingingly loud; the car itself is in ideal driving condition and ready for the track



ground to a halt on lap 10, having started with a half-load of fuel in a strategic bid to build up an early-stage advantage.

That opened the door for Niki Lauda to dominate the race for the remaining 66 laps having started from fifth on the grid, and he took the chequered flag a full 25 seconds ahead of second-placed Didier Pironi's Ferrari.

Now, almost 40 years later, that actual McLaren MP4/1B-6 driven to victory by Lauda is up for sale with London dealer Fiskens in on-the-button, ready-to-race condition.

As well as being important due to the win (which helped McLaren to second place in that season's Constructors' Championship) this MP4 is historically significant in being an example of the pioneering ground-effect design conceived by John Barnard of Ron Dennis's Project Four Racing, which made it the first ever F1 car to feature a now *de rigueur* carbon fibre composite chassis.

In its current ownership the car has won two FIA Historic F1 Championships, having been meticulously restored by TAG-McLaren for the company collection, complete with a brand new monocoque.

And with its correct Ford Cosworth 3-litre V8 engine emitting its legendary banshee wail, the car is nothing if not evocative, as demonstrated in the recent video footage of dealer Gregor Fiskens driving it in anger on the Fiskens TV YouTube channel.

If you didn't feel nostalgic for '80s motor sport before, you almost certainly will after watching it. If not, well - there might be something wrong...

#### **1982 McLAREN MP4/1B-6 (M10). EX-NIKI LAUDA**

On sale with Fiskens, 14 Queen's Gate Place  
Mews, London SW7 5BQ. £POA. Tel: 020 7584  
3503, fiskens.com

#### DEALER NEWS

## Rimac Nevera hits London's tourist trail

● The 258mph, 1914bhp **RIMAC NEVERA** EV left its native Croatia for the first time in early July for a quiet spin around London's shops and sights. It was here courtesy of **HR OWEN** – the sole official UK retailer of the £2m car. With its 1.4MW lithium-manganese-nickel batteries, it was, of course, exempt from the capital's £15 Congestion and £12.50 ULEZ zone charges.

● A 'lost' **2003 JAGUAR X-TYPE SCV8** (below) created for the failed Supercar V8 championship has been found alive and well and living with Andy Rouse. The former BTCC star's firm Rouse Hall built



the one-off X-type for the proposed BTCC rival series. Since then, the car has been stored. It's on sale (offered with a Lotus V8) with **CNC AWS** in the Cotswolds from £30,000.

● The largest ever survey of historic car fans (55,000) by the **FÉDÉRATION INTERNATIONALE DES VÉHICULES ANCIENS (FIVA)** reveals a significant contribution to local and

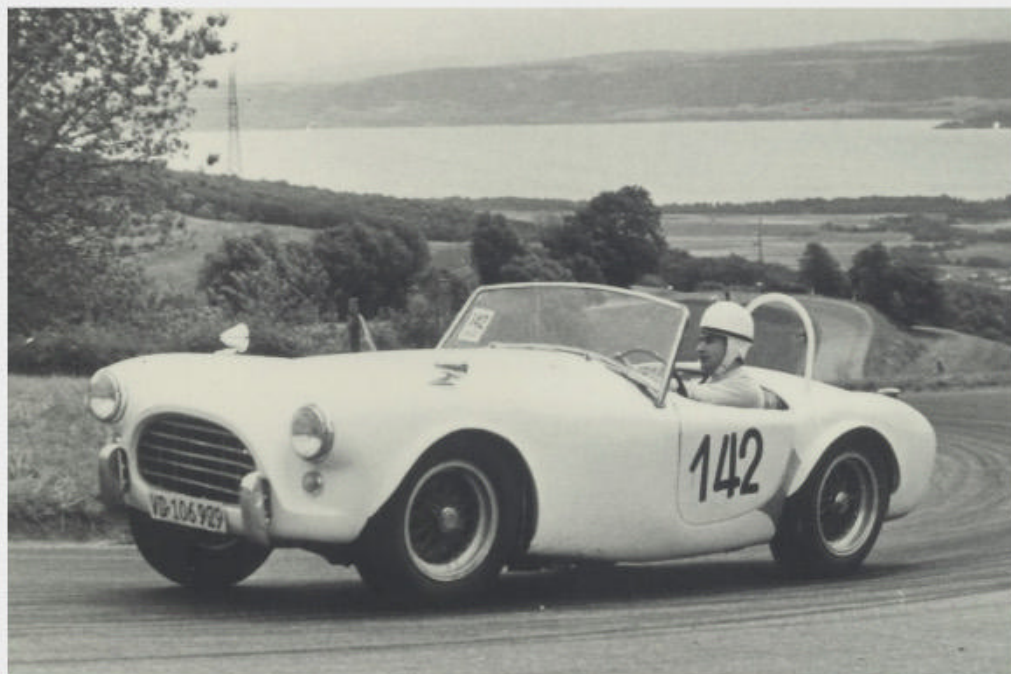
national economies. The average devotee spends **£4162** a year on their car or visiting events, which equates to **£8.6bn** a year based on the outlay of more than two million FIVA enthusiasts in 71 countries.

● Do you go weak at the knees with 'Holy Grail' cars? Then you'd better sit down. The single factory **BUGATTI EB 110 GT PROTOTYPE** is on sale at

Massachusetts dealer Copley Motorcars, with a meagre 680 miles on the clock. It's yours for £1.5m.

● Attention Leeds United footballers... Construction is underway on **JCT600's** new two-storey **FERRARI** dealership and service centre at The Boulevard, just a goalie's throw from Leeds' Elland Road ground. It is due to open in early 2022. **Lee Gale**





1956 **AC ACE BRISTOL ROADSTER LHD**



1957 **BMW 507 SERIE I ROADSTER**



1953 **TOJEIRO MG BARCHETTA**  
- EX STIRLING MOSS -



1997 **PORSCHE 993 CUP RSR 3.8**



1965 **PORSCHE 911 2.0 COUPÉ**  
RACE / RALLYE CAR



1930 **LAGONDA 2 LTR. SUPERCHARGED**



1947 **ALFA ROMEO 6C 2500 SS**  
PININFARINA CABRIOLET



1955 **MERCEDES-BENZ 190 SL ROADSTER**

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by Bonhams



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SOLD - £59,000



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SOLD - £49,500



SOLD - £65,002



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In the hands of Gene Haustein the 'Martz Special' took part in the 1933 and '34 Indy 500s



AUCTION HERO

# The Special one

A one-of-a-kind 1930s Brickyard racer looks set to cause a kerfuffle at Monterey Car Week, says **Simon de Burton**

**T**HINK 'PRE-WAR COMPETITION cars' and the name of Hudson might not be the first to spring to mind. But this famous American marque, launched in 1909 and named after Detroit department store mogul Joseph L Hudson who funded it, was well aware that track success translated into showroom sales.

Although it might be best known for its larger touring cars, Hudson offered a sporty, stripped-down roadster called the Mile-a-Minute as early as 1912. A similar model demonstrated the marque's performance five years later with a win at the Omaha 150-mile Auto Race at an average speed of 101mph, and Hudson-driving Ira Vail took

ninth at the 1919 Indianapolis 500. So by the time Barney Oldfield had lapped Culver City Speedway for 1000 miles non-stop at an average speed of 76mph in 1927, the ability of a Hudson to make an effective performance machine had been well and truly established.

Fast forward to 1932, and authorised dealer Lawrence J Martz is of a mind to seek further glory for Hudson by putting himself forward for that year's Indy 500 in the extensively modified racer pictured above.

Yet despite factory backing and a plethora of special tuning parts, the inexperienced Martz failed to qualify, leaving it to professional driver Gene Haustein to save face the following year by returning

to the celebrated oval and taking the 'Martz Special' to a respectable 15th place.

Haustein was hired to drive the Hudson at further AAA events throughout the year, finishing fourth in the Elgin Road Races and second in Detroit before running at Indianapolis for a third time in 1934, when the car finished in 29th place following a collision with Charles 'Doc' Mackenzie's 'Cresco Special'.

Fully restored to its original specification in 1982, the Martz Special is believed to be the only surviving competition Hudson of its type. It takes its place at the Pebble Beach sale alongside a remarkable line-up of race cars, including the March that won the Indy 500 in '86 with Bobby Rahal at the wheel (£1.1m-£1.5m) and the 1966 Ford GT40 AM GT-1, the first of only two aluminium-bodied GT40s built by Alan Mann Racing. It could fetch up to £6.5m.

## 1932 HUDSON 'MARTZ SPECIAL'

For sale with Gooding & Company, Pebble Beach, California, August 13. Estimate on request





AUCTION PICKS

# Look on the bright side

**Simon de Burton** rides the rainbow in his round-up of racers, classics and curios

**1993 PORSCHE 968 CLUB SPORT**  
SOLD BY BONHAMS £21,744

It might have been out of production for more than 25 years, but many people still regard Porsche's stripped-out 968 Club Sport as one of the best road-going track cars you're likely to find. Produced from 1993-95 with a mere 1923 sold, it eschewed luxuries such as electric windows and rear seats, was supplied with minimal soundproofing and tipped the scales at 100kg less than the standard car. This example in desirable Speed Yellow had covered a minimal 47,250 miles from new and was offered at 'no reserve' – but it was never going to be a bargain.



**1974 FERRARI DINO 246 GTS**  
SOLD BY SILVERSTONE AUCTIONS, £388,125  
Staged as part of National Ferrari Owners' Day at Sywell Aerodrome, 30 Ferraris crossed the block, including this Dino 246 GTS in original *Nocciola Metallizzato* (that's hazelnut metallic).



**1937 INDIAN FOUR**  
SOLD BY H&H, £95,450  
H&H's latest auction at the National Motorcycle Museum was topped by the sale of this Indian Four. It had been bought in '67 and used regularly before it was treated to a concours restoration.



**1974 FORD ESCORT RS2000**  
SOLD BY THE MARKET, £23,250  
It's increasingly difficult to find a Mark I RS2000 that has been left un-restored and 'lived in'. This one was converted for competition use from an early age and driven enthusiastically ever since.





**1983 RENAULT 5 TURBO**  
SOLD BY BONHAMS, £90,217

There can be few surviving mid-engined Renault 5 Turbos in as excellent, original condition as this. Having had just two owners from new, it was sold with only 35,000 miles on the clock.



**1946 MERLIN V12 AERO ENGINE**  
SOLD BY RM SOTHEBY'S, £46,900

Anyone who has seen the YouTube footage of Guy Martin enthusing about his fully operational Merlin might wish they had one of their own. This example, however, was sold for static display only.



**1969 FORD GT40**  
SOLD BY GOODING AND COMPANY, £2.5M

This was completed in 2009 using the last of the 20 MkIII chassis commissioned by Ford Advanced Vehicles to make road versions of the race car. Just seven were built under the '60s programme.

#### FORTHCOMING SALE HIGHLIGHTS

● **H&H, BUXTON, AUGUST 11**

August is a quiet month on the UK saleroom scene, but H&H is among a few auctioneers giving an opportunity for insatiable collectors to keep on buying with this 'live online' sale. Taking the firm's ABC (automobilia, bikes, cars) format, it is expected to feature 100 lots each of cars and bikes, and more automobilia.

● **BONHAMS, QUAIL LODGE, CALIFORNIA, AUGUST 13**

Fans of the rare Riley MPH will lust after the 1934 example crossing the block here. It was the original London Motor Show car and remained in the hands of its previous owner for 65 years. Just 16 MPH cars were made; the last at auction fetched £636,000 in 2016.

● **GOODING & COMPANY, PEBBLE BEACH, CALIFORNIA, AUGUST 13-14**

Among the eclectic array will be six cars that belonged to the late Neil Peart, drummer with rock band Rush. Dubbed 'the Silver Surfers' the collection includes a 1970 Lamborghini Miura P400 S (£870,000-£1.1m) and a 1964 Shelby Cobra 289 (£650,000-£720,000).

● **RM SOTHEBY'S, AUBURN, INDIANA, SEPTEMBER 2-5**

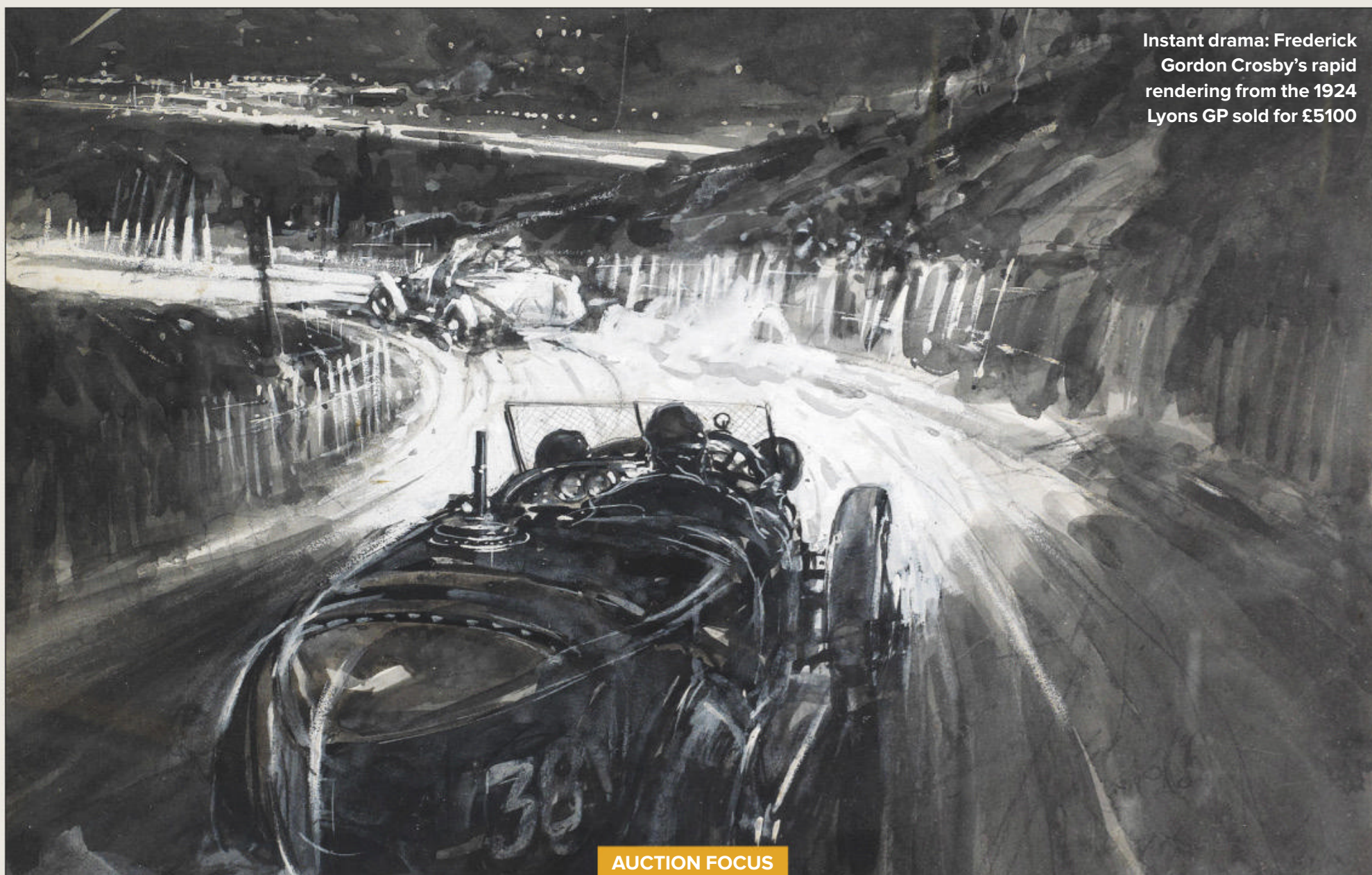
This auction is significant because of the remarkable collection of more than 100 vehicles squirrelled away over a 65-year period by the late Glen Hague. The lifelong Ford salesman had a soft spot for FoMoCo products, but his hoard also included a selection of Cushman scooters – 44 of them.



**1996 ALFA ROMEO 155 V6 TI**  
SOLD BY RM SOTHEBY'S, £680,743

Hailing from the end of the four-year era of the 155 racers, this was driven to victory by Nicola Larini at Mugello and Interlagos. It returned to form in 2019 winning its DTM Classic debut.





Instant drama: Frederick Gordon Crosby's rapid rendering from the 1924 Lyons GP sold for £5100

AUCTION FOCUS

## The paper chase

Now they're prized display items, but once they were just jobs to be done in a hurry. **Gordon Cruickshank** looks at racing illustrations and motoring art

MOTORING ART HAS BEEN WITH US AS long as the motor, even if in early days it was often as the butt of cartoon jokes - just look at *Punch*. But some of it has become highly prized - and of course very collectible.

From years past, the lithographs of Montaut and Gamy (as on the Michelin building in London) are some of the best-known images of Edwardian racing, and you can buy one of these period prints for a few hundred pounds. Between the wars two names tower over the others, as Bonhams automobilia expert Toby Wilson confirms.

"Pre-World War II, the two great names are Frederick Gordon Crosby of *The Autocar* and Bryan de Grineau of *The Motor*. Both were commercial artists and though allied to magazines also took on commission work. As well as his magazine illustrations Crosby did cartoons, pencil sketches, watercolours, front covers for racing programmes and posters. But in this department we only handle the artwork itself, and it's eagerly sought.

"In March we sold a Crosby monochrome gouache of the 1924 Lyons GP for £5100, while back in 2004 a charcoal of a Peugeot/Sunbeam chase in the 1912 GP de Dieppe made £13,800."

Remember that these were hurried jobs to illustrate the race reports in next week's *Autocar*, then carelessly stacked up in the editorial office. Mostly in black and white, in gouache and ink, they were not seen as 'fine art', yet their urgent style and unfinished edges lend them a drama that makes a great display. Often the artwork wasn't signed because it was going in a magazine, so the signature of one of the big names is a significant boost to authenticity and price.

"You have to wait until after the war for other great names to emerge, like Roy Nockolds and Frank Wootton, a superb aviation artist who also turned his hand to motoring."

Buying a Crosby is beyond most of us, but some of today's artists are worth keeping an

eye on. "Lately I've noticed Alan Stammers' pencil work, and there's Michael Wright, Barry Rowe and Alfredo de la Maria," says Toby. Perhaps the dean of current art is Michael Turner, who has been producing his dramatic and highly accurate images since the 1950s. "Then there's Dexter Brown," continues Toby. "Highly prized and very adaptable. As de Bruyne he paints beautiful watercolours of Edwardian scenes, and as Dexter Brown he

paints wonderful abstract images using palette knives and brushes."

According to Toby, lockdown has changed the market. "People's confidence in buying over the internet has vastly increased. Before, many said they had to see the item. Now that's changed."

If you're buying, a good source is Tony Clark's [motoringart.info](http://motoringart.info), which lists many UK artists and advises on collecting and looking after artwork - including looking out for fakes. It happens in our world too.

**"These were hurried jobs, carelessly stacked up in the office"**





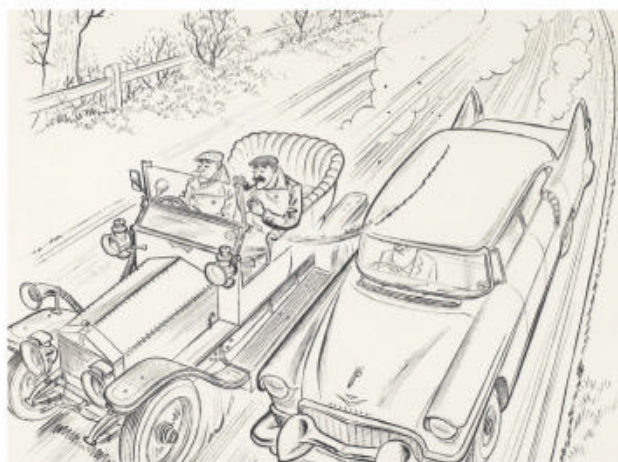
### WALTER GOTSCHKE

Germany's Walter Gotschke was self-taught, but became one of the masters in automotive art. His style veers towards the impressionistic, yet the people are believable and cars depicted are always accurate and recognisable. Showing Trintignant pulling into the pits in his Simca-Gordini in the 1951 Albi Grand Prix, this is one of four paintings sold as a lot at July's Goodwood Festival of Speed. *Bonhams' Festival of Speed sale*  
**SOLD £2167**



### PETER HELCK

In the States the pre-eminent name in motoring art is that of Peter Helck, a racing fan from the 1910s on who illustrated countless articles and books as well as adverts and posters. He worked in England too, attending races in France and Italy. His colourful grand canvases are full of action; this simpler monochrome original illustration depicts an early racer missing a junction watched by gleeful rivals. *FOR SALE The Illustrated Gallery, £5725*



### RUSSELL BROCKBANK

*Punch's* art editor from 1949-60, Russell Brockbank is best known for his motoring cartoons, often published in *The Motor*. Not only are they accurate depictions of cars, but they're amusing as well. This one, of a passenger in a Rolls-Royce Silver Ghost dismissively striking a match on the roof of a mere Cadillac, appeared in *Punch* in 1956 and came up at Goodwood's Festival sale. *Bonhams' Festival of Speed sale*  
**SOLD £637**



### ARTHUR BENJAMINS

Although he has lately switched to abstract art, Dutch-born Arthur Benjamins' racing paintings have gained a strong reputation in Europe and the United States. Here, in a large work using airbrush on canvas, he depicts engineer/designer/driver Frank Lockhart's ultimately ill-fated Land Speed Record attempt at Daytona Beach in his super-streamlined Stutz Black Hawk, powered by twin Miller engines. *FOR SALE Saatchi Art, £7387*

### MY PRIZED POSSESSION

## EUROCUP MEDAL & GEAR

### SCOTT MALVERN, BRITISH GT3 ACE AND PRO DRIVER COACH

"My choice has pretty much no monetary value, but is sentimental to me as a highlight of my career. In 2011 Ford revived the Formula Ford Eurocup, which brought the best drivers from the British, Benelux and Scandinavian championships together for four rounds. I won the first at Brands Hatch and the second was at Spa. I was aiming for my 10th consecutive win in race one – which would be a series record – but my gearbox broke in qualifying so I had to start last. Despite that I won the race by over two seconds! After, I asked my Jamun Racing mechanic Tom Huxtable if I could have the broken gear. It's been attached to the race winner's medal ever since as a reminder of one of my best drives."



## THE EXPERT VIEW



### The smell of success

Here's an exciting topic: race-used collectibles. Can you get much cooler than having an actual F1 front wing mounted on your wall or one of your hero's race-worn crash helmets on display? This is the sort of stuff that collectors spend years tracking down.

During the early days of the World Championship, drivers like Moss, Brabham and Clark bought their own overalls, helmets and boots. Teams didn't supply them, so they are very personal possessions that sometimes lasted years, but were often discarded when worn out. Things changed in the 1970s when sponsors got involved and would supply race gear with logos on. A helmet might last a whole season; in the modern era a driver will have three helmets per race!

One of the best tips in this area is to not expect perfection. Likewise, some also have their own distinct aroma. Racing is a sweaty sport and that takes its toll. We once had a helmet that had to be kept in a display case because it had a whiff to it.



We did a signing at a world champion's home recently and he showed us bags of overalls, gloves and boots. While they're valuable and historically important, they did pong a bit – as they'd been used, never washed and stuffed into a bag!

Race-used car parts are a big market. The best are those from ex-factory staff who either made the bits themselves or were given them by the team. They're authentic, have solid provenance and almost qualify as museum pieces.

Then there are the bits that get upcycled. Does a Ferrari V12 engine look better as a coffee table? I'm not so sure. Things like that become art or kitsch. If done right, it can be a second life; if done wrong it just ruins the original.

Andrew Francis is director at The Signature Store. [thesignaturestore.co.uk](http://thesignaturestore.co.uk)





THE SHOWROOM

# *Motor Sport collection*



**Editor's choice**

## Roll out the Carroll

From art and memorabilia to scale models and books, you will find a hoard of collectibles at [motorsportmagazine.com/shop](https://motorsportmagazine.com/shop)

### CARROLL SHELBY-SIGNED ASTON MARTIN MODEL

Before he became America's answer to Colin Chapman and had his life immortalised by Matt Damon on the silver screen, Carroll Shelby was himself a fine driver. He went on to make his name as a performance and racing tuner through creating classics like the Shelby Cobra, King Cobra, multiple souped-up Ford Mustangs and even the powerhouse Ford GT40, but prior to that, Shelby was one of

America's best all-rounders. Back in 1959 he made history by helping Aston Martin to its breakthrough Le Mans 24 Hours victory, sharing a DBR1 with Roy Salvadori. That made him only the second American ever to win at La Sarthe, following Phil Hill's victory just a season earlier.

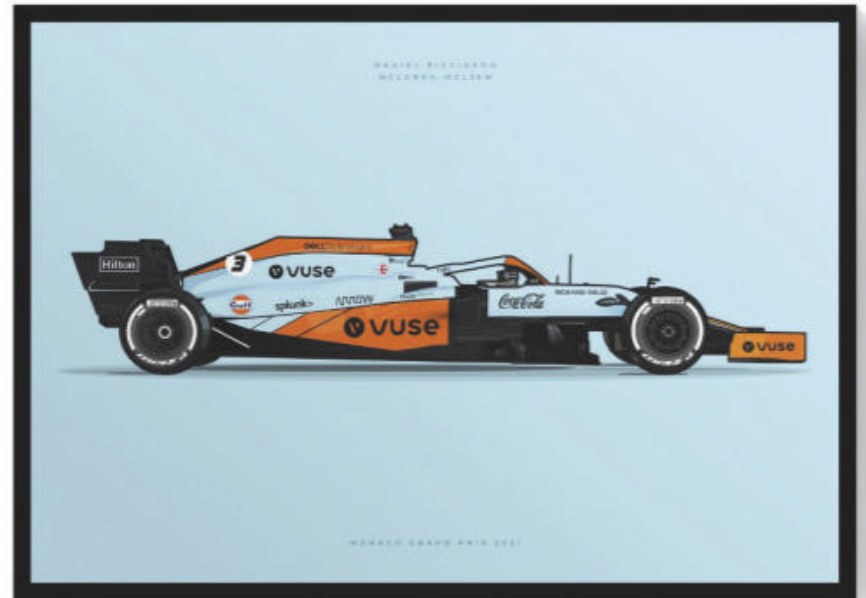
Few racing cars have managed to match the DBR1 for looks, and fewer still for its price – chassis

No1 from 1956 was sold at auction back in 2017 for £17.5m, a world record for a British car. While that may be a smidge over what most can afford, this 1:18-scale recreation is perhaps the next-best option. Intricately modelled, supplied in a bespoke mahogany case complete with Aston winged badge, and topped off by a plaque hand signed by Shelby himself. Only two have been made, so get your order in now. **£399.95**



### McLAREN MONACO PRINT

Perhaps it says a lot about the state of modern Formula 1 that a one-off livery generated such a buzz around the Monaco Grand Prix. The famous Gulf Oil colours may have become over-used in unofficial quarters in modern times, but McLaren's decision to bedeck its MCL35M in orange and blue to celebrate its partnership with the fuel giant brought the colours back to F1 for the first time since 1976 (on Alessandro Pesenti-Rossi's Tyrrell). Now you can give the fresh design a place on your wall thanks to this range of art prints featuring Daniel Ricciardo's car. Available in sizes from A4 to A1. **From £17**



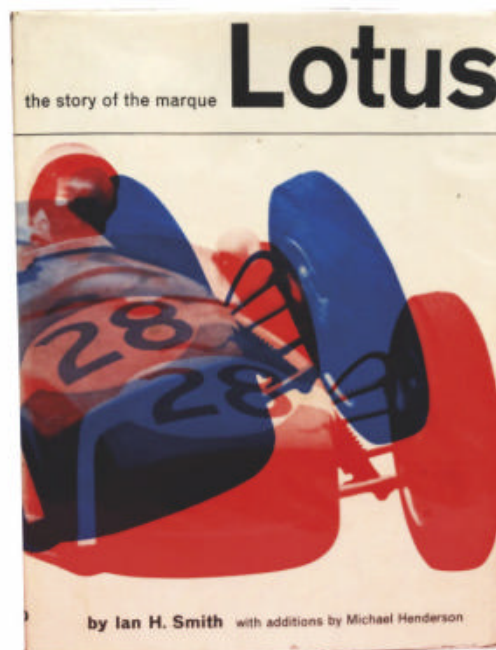
### MOTOR SPORT COOLER BAG

Isn't it great to be back trackside? We've been loving the feeling so far... even if certain sections of the Government find it hard to understand that a venue like Brands Hatch, must be capped to 4000 spectators, yet five times that can cram into a football stadium. It's a good job we can keep our sour grapes chilled on the banking with our own branded insulated cooler bag, bearing the logo of everybody's favourite racing magazine. **£19.99**



### SIGNED LOTUS BOOK

There are few things more exciting than delving headfirst into even the most disorganised of second-hand book shops. There's something about the thrill of the chase to find a new and interesting rarity. Maybe even an investment item. This second edition copy of *The Story of the Marque: Lotus* certainly doesn't come from a disorganised bookshop – it's from our friends at Hortons Books – but it certainly does qualify as a highly desirable piece. Inside you'll find 176 pages of historical Lotus information, plus verified signatures from Jim Clark, Trevor Taylor and Colin Chapman. We defy you to find another one like it. **£3450**



### MICHAEL SCHUMACHER-SIGNED CAP

Lewis Hamilton may have knocked him off his perch somewhat in recent years, but few would deny that Michael Schumacher remains one of the greatest ever F1 talents. With career stats that many believed unbeatable prior to Hamilton, Schumacher remains a titan of the sport. Since his skiing accident in 2013, he's withdrawn from public life. Authentic hand-signed merchandise is rarer than you'd think, and this cap is the real deal, supplied with a certificate of authenticity. **£799.99**

### ABOUT THE MOTOR SPORT SHOP

With hundreds of special and unique racing-themed products, and many new items regularly added, the *Motor Sport* shop is aimed at both serious and casual collectors with a number of price points to suit your budget. Visit [motorsportmagazine.com/shop](https://motorsportmagazine.com/shop)



### PIGGYBACK LE MANS PRINT

Surely there's no better way to pep up a wall space than by gathering three of the finest Porsche 917s together in one beautifully framed print? Automobilitist has done exactly that, capturing this wonderful image of Helmut Marko/Gijs van Lennep's Martini-coloured 917K alongside Richard Attwood/Herbert Müller's Gulf Oil example. Oh, and in the background there's the legendary Pink Pig of Reinhold Joest/Willi Kauhsen, just for dramatic effect. **£230**





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- 1 of only 210 examples ever produced, made in celebration of Ferrari's 70th Anniversary
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- A total specification example, including the optional Carbon fibre removable hardtop
- Only 99km from new and freshly serviced by Graypaul Ferrari
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**£POA**



**2004 PORSCHE CARRERA GT**

The former property of an ex F1 racing driver & benefits from exceptional service history from new.....**£750,000**



**2011 FERRARI 599 GTO**

A one owner, UK supplied example with impeccable service history from new. Fitted with a host of factory options.....**£495,000**



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### 1976 LAMBORGHINI COUNTACH LP400 'PERISCOPIO'

- The 103rd of only 151 LP400 Periscopios, of which this is 1 of 10 right-hand drive, UK supplied examples
- 1 of only 3 right-hand drive examples delivered new in Giallo Fly over Tobacco, as per the original Periscopio launched at the 1971 Geneva Motor Show
- Fresh from a body-off, nut and bolt restoration by Lamborghini Polo Storico
- Lamborghini Polo Storico certified confirming its full matching number status

**£POA**



#### 1967 FERRARI 275 GTB/4

1 of only 6 factory Verde Pino examples and single ownership for the last 45 years, total matching numbers.....**£POA**



#### 1930 BENTLEY 4 1/2 LITRE SUPERCHARGED 'BLOWER'

1 of only 18 matching number examples that still exists, regarded as the most original of all the Blower Bentleys.....**£POA**



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1 of only 24 right-hand drive 3.8 'S' roadsters ever produced, finished in its original colour combination.....**£199,500**



#### 1955 ASTON MARTIN DB2/4 DROPHEAD COUPE

1 of only 73 examples ever produced, presented in its original colour combination & superbly restored.....**£295,000**

[www.tomhartleyjnr.com](http://www.tomhartleyjnr.com)





Roy Salvadori took pole, fastest lap and a win at the 1960 Silverstone International in the nippy Cooper Monaco T49



BUYING GUIDE

# Rear revolution

Sleek, versatile and with its engine at the back, the Cooper Monaco paved the way for Can-Am, says **Robert Ladbrook**

## COOPER MONACO

- **Price new** It depended who you were...
- **Price now** £120,000-£250,000
- **Engine** Coventry Climax FPF, Maserati 2.5, Ford/Chevrolet V8s (Mark III on)
- **Rivals** Lotus 15, Jaguar D-type
- **Verdict** Proved Cooper's potential outside grand prix racing, and will go down in history as a Can-Am forerunner

**W**HILE RIVAL COMPANIES such as Lotus, McLaren and Jaguar often get the plaudits for innovation in motor sport, there can be no overlooking the role Cooper Cars Co played in revolutionising racing during the 1950s.

When Stirling Moss took the flag in the 1958 Argentine Grand Prix, he not only secured the first GP win for Charles and John Cooper's privateer outfit, but also the first for a car with the engine at the wrong end. Many laughed when Cooper placed the engine behind the driver during 1957, but a year later the concept was proven by Moss and team-mate Maurice Trintignant, who shared victories across the first two races of the season. A year on and the Cooper stood on top of the world as Jack Brabham secured the 1959 F1 title in a T51.

Cooper may have been small, but its reputation led to

projects outside GP racing, and few were more notable than the Monaco sports racer.

Named in tribute to Trintignant's F1 victory in the principality the previous year, the Monaco was launched in 1959 to lead Cooper's attack on sports car racing. Designed to make the most of its F1 technology, it took on, and often beat, Lotus at its own game.

Cooper began work on sports racing cars during the mid-50s, having created a small run of Jaguar-powered machines, aimed at improving on the all-conquering C-type. As Cooper's proficiency improved, in-house chassis designer Owen Maddock devised a spaceframe chassis for a new model and clothed it in aluminium. With the engine and gearbox sitting in the rear, it was essentially a widened F1 car.

The Monaco was born, and quickly showed its versatility. While Cooper favoured a 1.5-litre Climax FPF, a number more used Maserati four-cylinders,

and Stirling Moss dumped a 2.5-litre Climax into his to qualify on the front row for the 1959 British GP sports car race at Aintree.

It's difficult to know exactly how many Monacos were built, as many were sold in un-numbered kit form to avoid taxes, and Cooper never quoted a UK price, instead insisting it was "open for discussion".

A Mark II emerged for 1960 with tweaked aerodynamics and a longer nose, before the Mark III of 1961 really ramped things up. Cooper spotted a market for the Monaco in America, with the USAC planning a new West Coast Fall Series, catering for sports racers with pretty much zero tuning restrictions. The Monaco's chassis was tweaked to allow V8s to be fitted. One of its first customers was Carroll Shelby.

In 1963 the Shelby Coopers emerged, relabelled as King Cobras, with hefty Ford V8s packed into them. Three years later, the Fall Series would morph into Can-Am and, while Cooper was by now phased out, the versatile Monaco had played its part in laying the foundations for what would become America's most famous sports car championship. ●



## ONE FOR SALE

**1963 COOPER-CHEVROLET MONACO**  
One of 15 sold to the US in 1963/64, it was formerly owned by actor Dan Blocker. £POA, [speedmastercars.com](http://speedmastercars.com)





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Ferrari Dino 246 – 1974 **£349,995**



Rosso Corsa Exterior with Nero Leather Interior, 16" Alloy Wheels, Ferrari Classiche Certified, Complete Recent Restoration. The truly beautiful Pininfarina design of the Dino, executed by the Scaglietti factory in Modena, can be considered one of the most desirable car designs of all time. **54,000 miles**

Ferrari 488 Pista – 2019 **£304,995**



Rosso F1 2007 4 Layer Paint with Nero Alcantara Interior, Nero Alcantara Dashboard, ORO Metallic Stitching, 20" Forged Gold Rims with Nero Brake Callipers, Climate Controlled Air Conditioning, Large Daytona Racing Seats with Racing Seat Lifter, Front and Rear Parking Distance Control with Parking Camera. **2,200 miles**

Ferrari F8 Tributo – 2021 **£273,995**



Grigio Scuro Two Toned Body Paint in Nero DS with Nero Leather Interior, Inner Details in Bianco, Nero Dashboard, Nero Carpets, Coloured Mats with Logo, Silver Stitching, Nero Headlining, 20" Forged Diamond Rims with Giallo Brake Callipers, Titanium Exhaust Pipes, Titanium Wheel Bolts. **500 miles**

Ferrari F430 Scuderia – 2008 **£199,995**



Rosso Corsa with Nero Tessuto Interior, Nero Dashboard, Rosso Stitching, Nero Headlining, 19" Forged Alloy Wheels with Nero Brake Callipers, Climate Controlled Air Conditioning, ASR, Large Racing Seats, Horses Stitched on Headrest in Rosso, Rev Counter in Rosso, TPMS, Fully Trimmed Boot Fabric Wheel Arch Lines. **9,500 miles**

Ferrari 488 Spider – 2016 **£174,995**



20" Forged Dark Painted Rims with Giallo Brake Callipers, Climate Controlled Air Conditioning, Large Goldrake Racing Seats, Rev Counter in Aluminium, Horses Stitched on Headrest in Blu, Front and Rear Parking Distance Control, Suspension Lifter, Racing Seat Lifter, Coloured Matts with Logo, Sports Exhaust Pipes. **11,300 miles**

Ferrari Portofino – 2018 **£164,995**



Nero Daytona Metallic with Cuoio Leather Interior, Upper Nero and Lower Cuoio Leather Dashboard, Nero Alcantara Carpets, Nero Special Stitching, 20" Chrome Painted Rims with Rosso Brake Callipers, Horse Stitched in Headrest in Nero, Climate Controlled Air Conditioning, Cruise Control, Large Cuoio Leather Electric Seats. **2,500 miles**



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In production from 2003-10, the Mercedes SLR McLaren failed to woo the press, but its few sales grants it the rarity factor today



#### BUYING GUIDE

# Identity disorder

McLaren or Mercedes? Depending on the version you have it can be both. **Robert Ladbrook** looks at the road car with an F1 heart

**W**E COULD GET LOST IN THIS debate for hours: is it more a Mercedes or McLaren? Well, it was developed by McLaren, built in Woking, but funded entirely by Mercedes money and powered by a very Mercedes hand-built AMG engine. Does it really matter? You can hardly have badge snobbery when both names have excellent pedigree, and the SLR arguably drew from the best parts of its parents.

Approaching the new millennium, Mercedes wanted to do something special to showcase its future, so released its striking Vision SLR concept at the Detroit Auto Show in 1999.

Designed to draw on the spirit of the original 300 SLR - so ably handled by Moss, Fangio and co in the 1950s - Mercedes wanted to revive the moniker to lead its sporting range into the new century. And it caused a stir. Mercedes' idea was for a carbon-fibre monocoque

chassis, carbon-ceramic brakes - both never before used on a production road car - a sleek body and a 5.5-litre supercharged heart.

Sounded great. Looked great. But there was an issue. To build the thing, Mercedes needed help, and it found it through Formula 1.

Mercedes rejoined GP racing in 1995 as engine supplier to McLaren. As part of the deal, Mercedes also bought a 40% stake in McLaren Group, giving it a partnership for the SLR.

With McLaren fully set up and adept at

working with carbon fibre, the factions began work to bring the Vision SLR to life. Except they didn't really work together all that well. On the one hand, McLaren envisaged an ultra-lightweight, cutting-edge racing car for the road, developing the fully carbon monocoque with just an aluminium rear subframe to keep weight as low as possible. And then Mercedes weighed in, wanting a plush interior, sat nav, air conditioning and all the toys it could cram in.



## ONE FOR SALE

**2008 MERCEDES-BENZ SLR MCLAREN ROADSTER**

One of the desirable drop-top editions with just 2000 miles on the clock from new. **£319,990**, [redlinespecialistcars.co.uk](http://redlinespecialistcars.co.uk)


#### MERCEDES-BENZ SLR MCLAREN

- **Price new** £250,000
- **Price now** £300,000-£750,000
- **Engine** 5.4-litre supercharged AMG V8
- **Rivals** Ferrari 599 GTB, Aston Martin V12 Vanquish, Lamborghini Murcielago
- **Verdict** The famous name wasn't quite enough to save it in period, but the SLR is becoming a collectors' item.

The result was McLaren's featherweight chassis was clothed in a hefty suit of tech that meant it weighed 1750kg - way more than its closest rivals from Ferrari, Aston Martin and such.

Regardless, Mercedes supplied an exquisite 626bhp 5.4-litre supercharged V8 to be fitted just behind the front axle, and the SLR was reborn for 2003. But it never got the fanfare it deserved. Due to its split development, critics could never work out if it was meant to be a cruising GT heavyweight or a point-to-point racer. It could hit 62mph in 3.8sec, but never felt as sharp as other, purer sporting offerings.

That prompted a series of upgrades, with the more powerful 722 edition launching in 2006, and then a radical Stirling Moss speedster in 2009 when development was petering out.

Just over 2000 SLRs were built before production ended in 2010. But there was time for a swansong, the McLaren Edition. For just £150,000 on top of what you already paid for your SLR, McLaren created 25 of these SLRs - each one individual according to its super-rich owner's instruction - finally making them more McLaren than Mercedes. They're rare, but one did sell last year for just over £400,000. 





*THE EX – CHARLIE MANDERS, REDMOND GALLAGHER, DOCUMENTED PRE-WAR COMPETITION HISTORY*  
1926 BUGATTI TYPE 35A TO 35B



*FIA GROUP 4 SPECIFICATION*  
1981 FERRARI 308 GTB

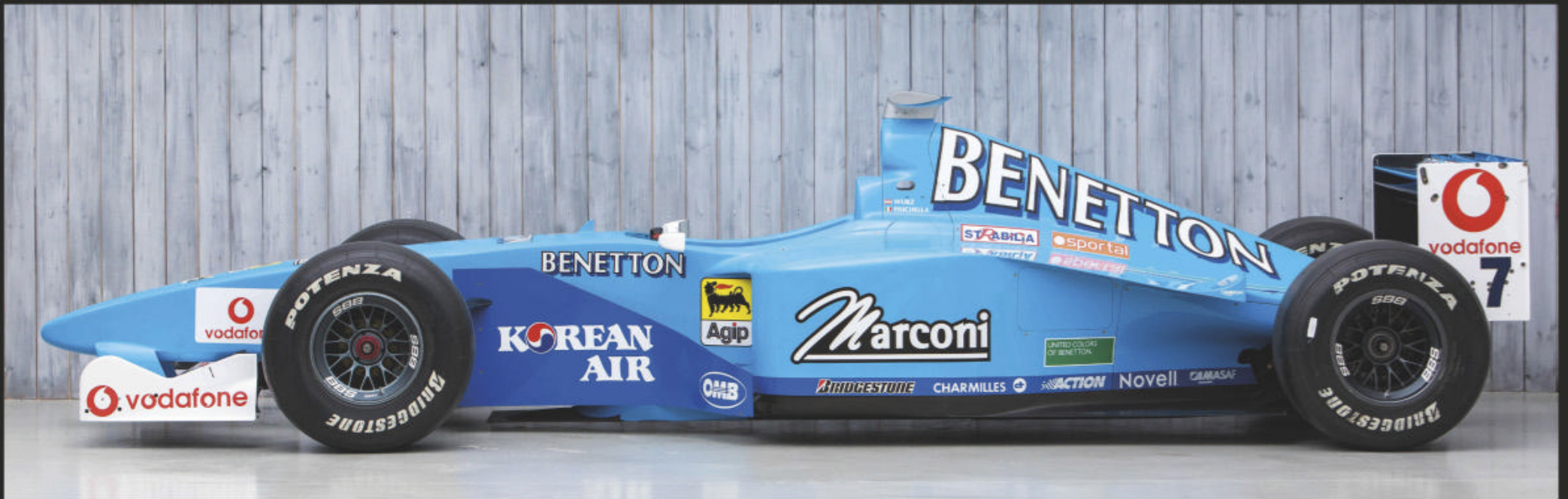


*THE EX – PORSCHE MOTORSPORT ASIA, CHAMPIONSHIP WINNING*  
1997 PORSCHE 993 CUP 3.8 RSR



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2000 BENETTON B200 FORMULA 1



*THE MULTIPLE CHAMPIONSHIP WINNING*  
1964 SHELBY COBRA 289



*THE 3RD OVERALL IN THE SEBRING 12 HOURS, EX – MARTY HINZE, WHITTINGTON BROTHERS*  
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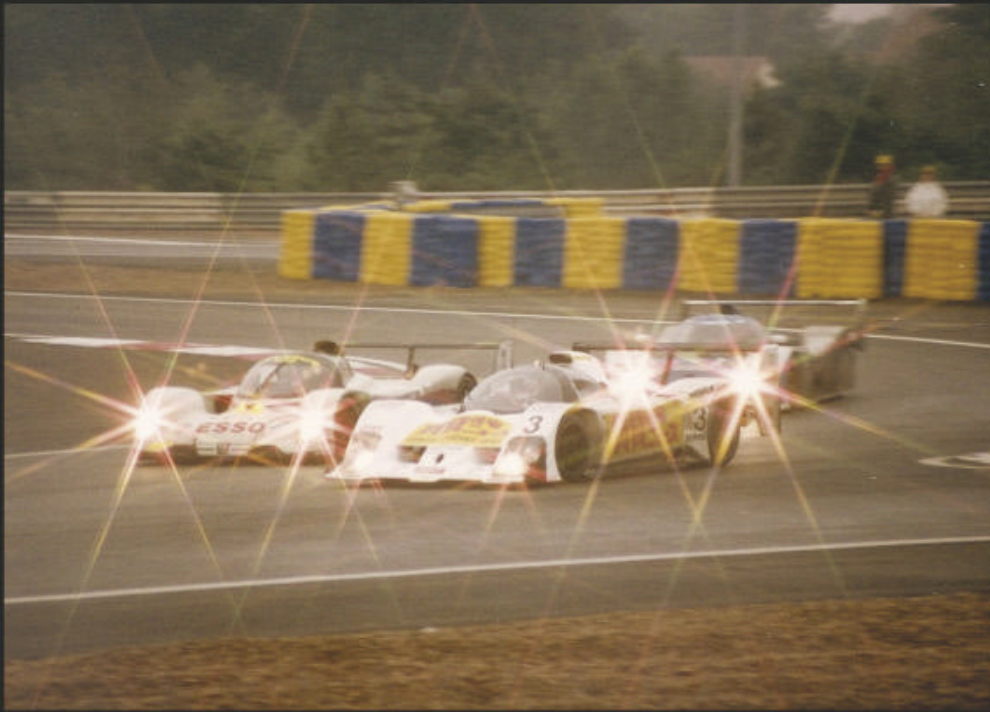
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Paddles • 20" Black Carrera S Wheels  
Switchable Sports Exhaust • Sport  
Chrono • Previously Sold & Serviced  
by Paragon • 9,659 miles • 2015 (15)

**£54,995**



### Cayman S (1718)

Agate Grey • Black Leather Sports  
Seats • PDK Gearbox with Paddles  
20" Carrera S Wheels • Touchscreen  
Satellite Navigation • Sport Chrono  
Heated Seats & Steering Wheel  
14,224 miles • 2016 (16)

**£49,995**



### 911 Turbo (1996)

Arctic Silver • Black Leather Fully  
Electric Seats • 18" Turbo II Wheels  
Cargraphic Sports Exhaust • Electric  
Sunroof • Previously Sold & Serviced  
by Paragon • 34,902 miles  
2001 (Y)

**£49,995**



### 911 Carrera 2 S (1997 GEN II)

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Seats • 19" Turbo Wheels • Sport  
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45,056 miles • 2009 (59)

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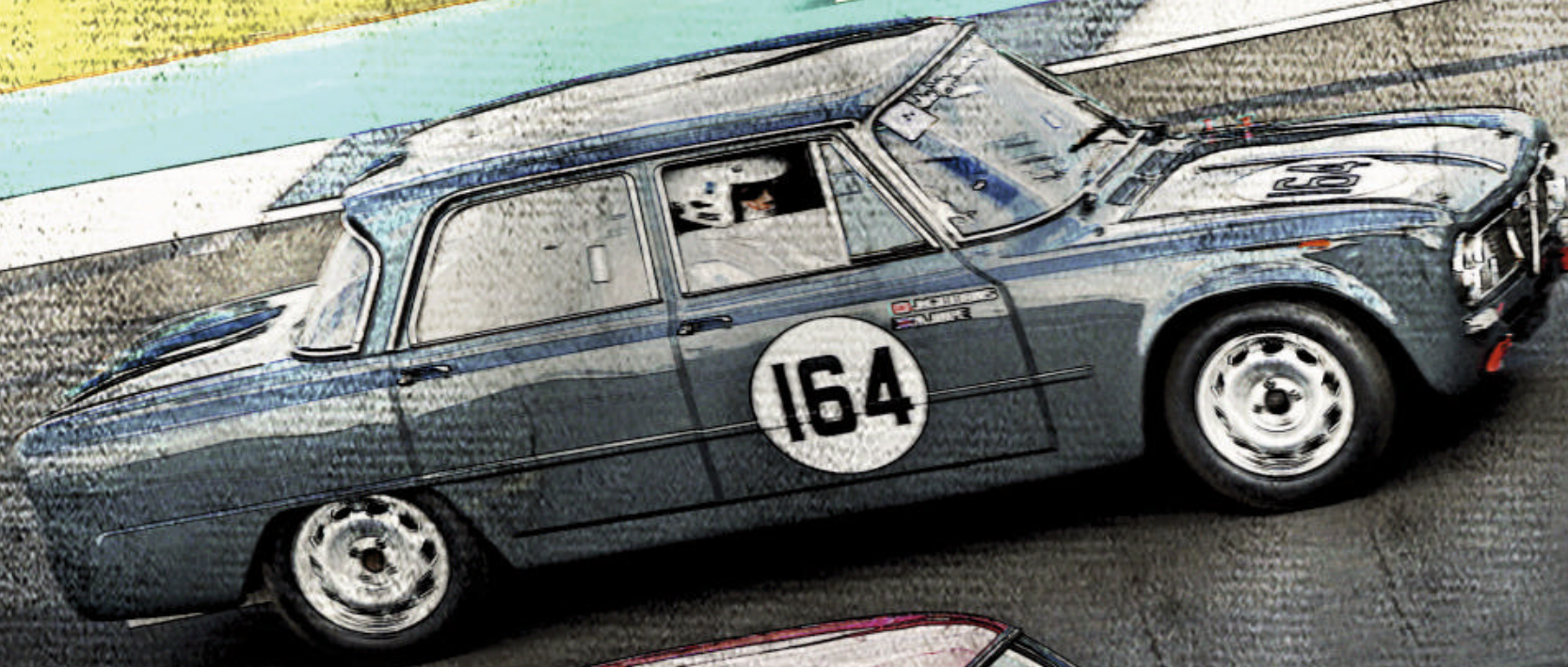
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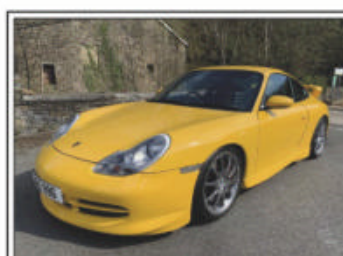


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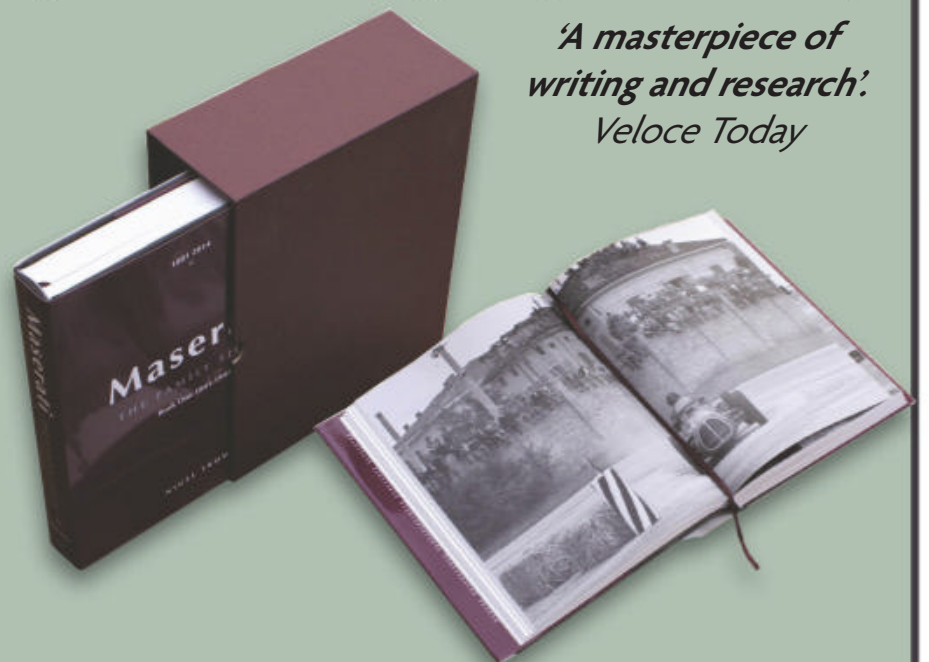


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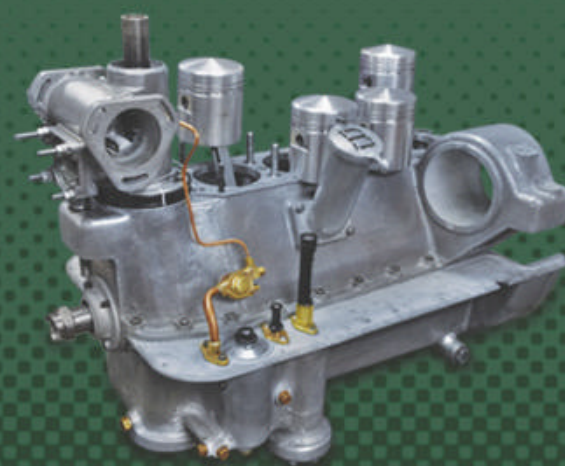
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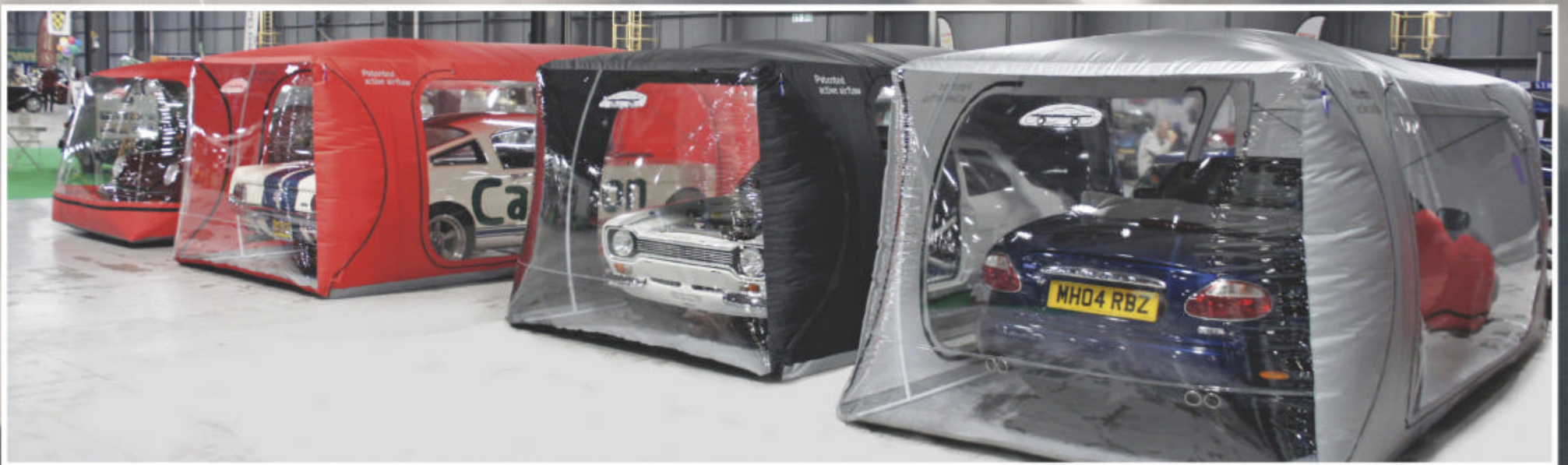
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# M YOU WERE THERE

Right: Lotus-Lamborghini drivers Derek Warwick and Martin Donnelly look cheerful



Below: Michele Alboreto waits patiently while adjustments are made to his car



Because of a Williams deal with Honda, Lotus had to use an '86-spec engine in its 1987 active-suspension 99T



1989: Gerhard Berger in the Ferrari F1-89 (aka 640) returns to the pits



Below: in 1987 John Barnard joined Ferrari as chief designer. Here he and an engineer discuss settings with Gerhard Berger



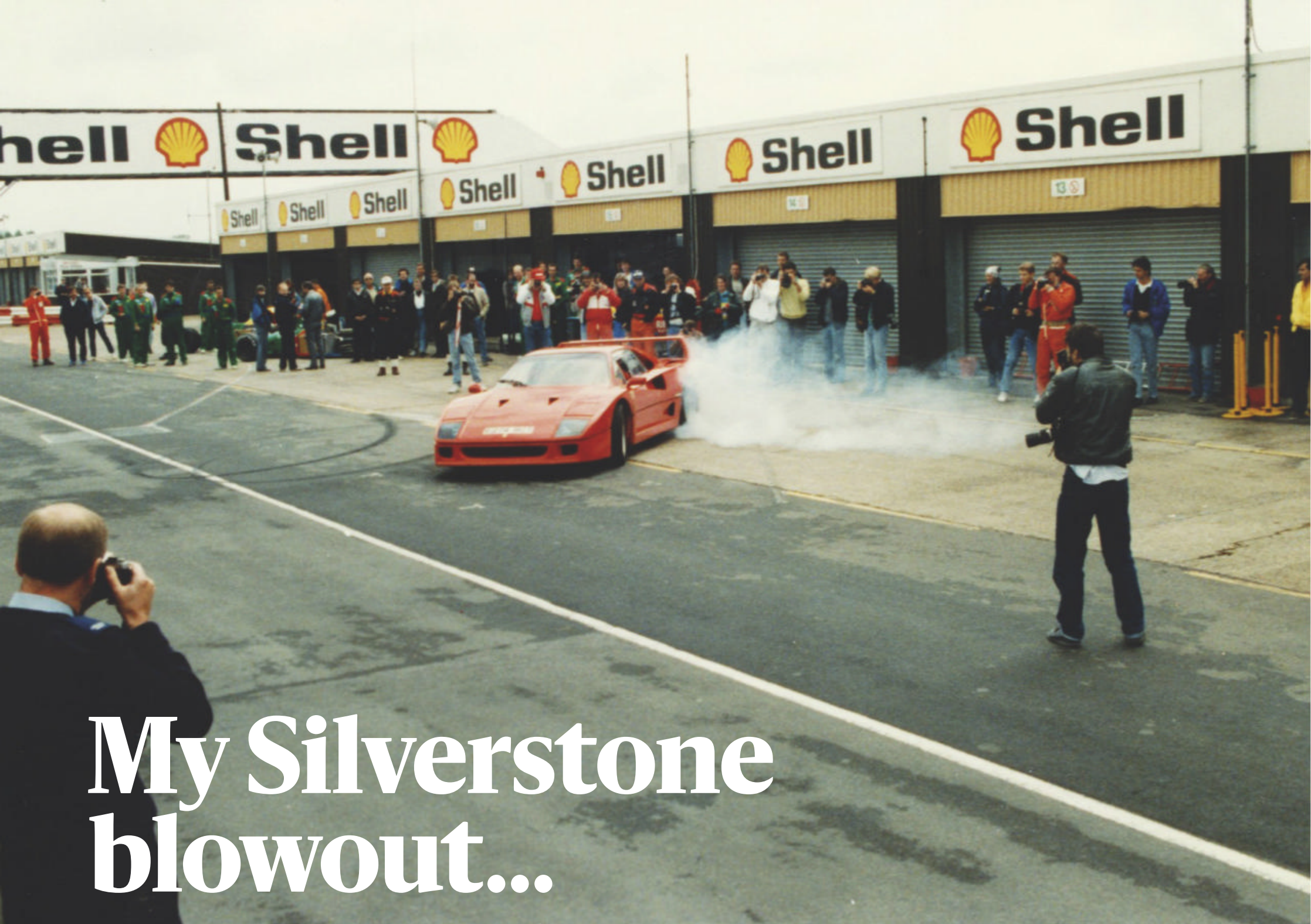
Ayrton Senna waiting for preparations to be finished on his Lotus 99T



## SEND US YOUR IMAGES

If you have any images that might be suitable for *You Were There*, send them to: *Motor Sport*, 18-20 Rosemont Road, London, NW3 6NE, or email: [editorial@motorsportmagazine.co.uk](mailto:editorial@motorsportmagazine.co.uk). Hi-res digital images preferred. Original images sent at owner's own risk. We can't return.





# My Silverstone blowout...

After a 1987 trip to Ferrari's base at Maranello, **Tim Latham** and his friend Ray began to get invitations to join the team at Silverstone F1 tyre testing sessions, with free access to drivers and team members. The invitations continued for six or seven years. "We always knew they would stop eventually," says Tim, "but what memories we have!"



Gordon Murray, McLaren's technical director in 1988, discusses progress of the tyre tests with Alain Prost seated in his MP4/4



Our own Denis Jenkinson in earnest conversation with Nigel Roebuck.  
Top: Nigel Mansell performing doughnuts in the pitlane with an F40





**AUGUST 23, 1953**  
**BREMgarten, SWITZERLAND**

The Maseratis of Juan Manuel Fangio, Felice Bonetto, Hermann Lang and Onofre Marimón make a splendid sight before the 1953 Swiss Grand Prix – the penultimate GP to be held in the country. The race, however, ended 1-2-3 for Ferrari





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**1952 Aston Martin Le Mans Lightweight** finished in Aston Racing green with beautiful original dark green leather and tartan bucket seats. This car is very well known in Aston circles as it is as close in specification to the Aston Martin Team cars that competed at Le Mans in the 1950's. It has been extensively raced in recent years at The Le Mans Classic and is in the process of being made race ready for the next owner. This is an extremely rare opportunity to acquire a very rare and desirable 50's race car that is eligible and already accepted by the organisers of numerous high profile events. It is of course also eligible for the Mille Miglia. **Please enquire**



**1961 Aston Martin DB4** built to DB4GT specification. This fully restored Left Hand Drive DB4 was originally delivered new to a customer in Paris and remains French registered and we do not believe it will attract any duties if purchased by a European buyer. The specification includes a correct 12 plug cylinder head with twin distributors and twin coils, Borrani wire wheels, long range fuel tank and correct perspex rear windows. Needs to be viewed to be fully appreciated. **Please enquire**



**Our 1971 Aston Martin DBS V8** is in truly outstanding condition having been the subject of continuous maintenance and improvement by the four previous owners. Finished in Signal Red with contrasting Cream hide interior with bespoke Walnut dash and door cappings. This is undoubtedly one of the best of this model we have had the pleasure of offering in recent months. **Please enquire**



**1978 Aston Martin V8 Oscar India** Aegean blue with contrasting Oatmeal hide interior with Walnut dash and door cappings. The car has been enthusiast owned as can be seen by the way in which the history file has been diligently kept. It is exceptionally good to drive and likely to increase in value. **Realistically priced at £129,950**



**1966 Aston Martin DB6 Vantage** finished in Deep Ocean blue with contrasting Oatmeal hide interior and only 4000 miles ago was the subject of a complete restoration. The car which has had only 4 owners from new is understandably in superb condition and is an original Vantage with matching chassis and engine numbers. **Realistically priced at £359,950**



**1961 Aston Martin DB4 series III** finished in an interesting shade of British Racing Green with Beige hide interior. Owned by the most recent owner since 2004 but little used due to his large collection of other cars. The car is mechanically very sound with a nice interior but the paintwork will require some improvement. **Hence well priced to sell at £325,000**



**1997 Aston Martin Wide Bodied Virage Volante** finished in Oxford blue with cream hide interior and sitting on OZ alloys. This is a one owner car that has covered only 22,000 miles and comes with a detailed service history, much of which has been done by R S Williams, including a recent large invoice earlier this year for recommissioning. **Very sensible priced at only £89,950**



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